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ABSTRACT

This study examined the feasibility and advisability of using telecommunications in the Chicago Public School (CPS) system to support school reform that has been mandated by recent legislation. Survey research yielded information on the current status of staff development and Local School Council (LSC) training, and provided the basis for analyzing future needs in light of the reform directive--the decentralization of decision making in key areas to enable individual schools to address unique local needs and concerns--and determining how the use of telecommunications might address those needs. The report is divided into seven chapters: (1) Introduction to the Study; (2) Study Design and Methodology; (3) The Potential of Telecommunications for Schools; (4) Local School Councils and Parent/Community Outreach; (5) Staff Development in the Chicago Public Schools; (6) Present Telecommunication Resources in the Chicago Public Schools; and (7) Recommendations. It was concluded that telecommunications can and should be used to enhance and extend the quality and quantity of information and training available to parents and community residents serving on Local School Councils and to CPS teachers and administrators. The stated audience for this report is the CPS Board of Education, as well as administrators, teachers, and Local School Council members. (DB)

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Teachers, administrators, and LSC members from the following schools were instrumental in our work throughout the course of this study.

Profile Schools

Altgeld	Juarez High School
Beidler	Paderewski
Curie High School	Pilsen
DuSable High School	Revere
Dyett	Robeson High School
Ebinger	Sabin
Frazier	Spry
Guggenheim	Stowe
Jefferson	Sullivan High School
Johnson	Terrell

Advisory Task Force, Chicago Public Schools

Dr. Margaret M. Harrigan	Deputy Superintendent
Dr. Jodi Martinez-Martin	Director, Educational Service Center #6
Ms. Carole Nolan	Director, Bureau of Telecommunications and Broadcasting
Mr. Manual Ortiz	Director, Department of Warehousing and Distribution
Mr. Leonard Rubin	Director, Bureau of Staff Development
Dr. Mary Shannon	Assistant Superintendent, Department of Curriculum
Mr. Bernard Spillman	Assistant Superintendent, Department of Vocational and Technological Education

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I

INTRODUCTION TO THE STUDY

The schoolhouse is the center of [the] educational process. Each school is unique and functions as an individual entity.

(Board of Education Resolution, 6/14/89)

Telecommunications and School Reform in Chicago

This resolution embodies both the spirit and letter of school reform legislation that puts the destiny of Chicago's schoolchildren in the hands of those who have the most direct and immediate interest in their success--their parents, their community, and their local school teachers and administrators. This legislation decentralizes decisionmaking in key areas. As a result, Local School Council (LSC) members, principals, and teachers are being asked to establish policy and procedures in such areas as budget, school improvement, personnel, and implementation of state and federal guidelines -- areas that were previously managed by central office staff. The legislation's charge to these locally empowered groups is unequivocal: Local School Councils must be aggressive in using their authority to create schools in which all children learn. Thus, the reform legislation has created a critical nexus among school-based education professionals, parents, and the community that points their collective vision in the same direction. This report identifies and elaborates how telecommunications might address needs and priorities that are emerging for these newly empowered groups as school reform unfolds.

The law requires that local schools become the new "hubs" of the Chicago Public School (CPS) system; therefore, this study looks at telecommunications as one tool of empowerment--a tool that Chicago's LSCs, teachers, principals, and administrators can use to help them make decisions that promote improved student achievement. Ultimately, all decisions made by local school professionals and LSC members--even in areas of management and budget--must use the academic well-being of students as their final yardstick. However, the process of decentralization has left some gaping holes--between the goals of reform and the capabilities of people to reach them. Local schools and LSCs are not receiving information; nor are they positioned well to obtain training in how to use information they do receive. Moreover, schools are isolated from one another, thereby preventing the kind of cross communication and networking that might support them in this massive change process.

Control of information. Telecommunications represents efficient, economical, and equitable access to information. It is, therefore, one of the most powerful problem-solving tools available to the Chicago reform movement. Telecommunications can help Chicago facilitate communication and access to resources so imperative to making reform under a decentralized structure successful. Technology offers the opportunity to efficiently provide each local school with uniform and timely information. With the help of a telecommunication system, councils and school staff would spend less energy searching for accurate and appropriate information and training. This study reveals that LSC presidents and school principals currently are receiving information in a disorganized and ad hoc fashion. They report that they are overwhelmed by the volume of input and do not have the time to order and digest the information. Telecommunications offers a practical solution to this problem.

Potential for students. While this study does not directly focus on student learning, promoting improved student achievement is its ultimate goal--initially through telecommunications-based support for LSCs and education professionals who are making decisions that affect student learning. However, as soon as electronic networks are established and teachers and LSC members are trained to use them, it is a natural extension to begin utilizing them for student learning as well. An abundance of instructional services can be provided to Chicago's schoolchildren through telecommunications. Across the country, satellite "classrooms" already are offering curriculum and instruction via networks such as TI-IN, Oklahoma State University, and The Learning Channel. Moreover, other providers are rapidly developing new curriculum packages across a number of other electronic arteries.

These technological options can fundamentally restructure Chicago's classrooms and schools. No longer must classrooms be defined by concrete walls. Instead, new communities of learners throughout the school system can be constructed by matching common needs and interests. For instance, talented students at a west side school could participate in the same advanced courses as those at a magnet school for the gifted. Moreover, "choice" can become a real concept for all of Chicago's students as "satellites put the best teachers and content experts in every classroom." (Facilitating Technology Based Restructuring of Schools: A Regional Lab's Role, David Foster, 1989) In short, telecommunications can provide all students the broad range of course options that are now limited to the schools with the greatest resources.

The closer Chicago gets to building a system that comprehensively and effectively utilizes telecommunications for the support of local school council and staff development activities, the sooner students will have access to these kinds of enhanced instructional services.

II

STUDY DESIGN AND METHODOLOGY

Purpose of the Study

This study looked at the feasibility and advisability of using telecommunications to support reform efforts in Chicago. Specifically, investigators examined the current status of staff development and LSC training, analyzed future needs in light of the reform directives, and determined how the use of telecommunications might address those needs. The focus, throughout the study, was how best to facilitate the legislated goal of local control while providing each school with equitable resources and information. This study attempted to identify where telecommunications would be the most efficient means of addressing challenges under the recently decentralized governance system.

Report Audience

The primary audience for this report consists of the Board of Education, as well as administrators, teachers, and Local School Council members of the Chicago Public School system. Additionally, the results of the study may be important for community members, businesses, foundations, and other groups and individuals who care about education in Chicago. The report can also serve as a blueprint for other large urban school systems facing challenges similar to those of Chicago. Moreover, many of the needs are common, though not identical, to those found in urban, rural, and suburban districts of all sizes and populations.

Study Questions

The study was designed to answer the following questions:

- 1) How might Chicago's telecommunications resources be utilized and enhanced to support Chicago reform under the new governance structure?
- 2) What telecommunications resources are present in Chicago at the central and building levels?
- 3) How are other large urban school systems using telecommunications?

- 4) How might telecommunications be used to facilitate staff development activities in Chicago for teachers and principals at the central and building levels?
- 5) How could telecommunications help schools comply with the staff development mandates of PA 85-1418?
- 6) How could telecommunications support Local School Council training currently being conducted, and training needs that still exist?
- 7) How might telecommunications extend the role community organizations are playing in supporting training of LSC members?

Study Methodology

The study methodology was designed to obtain pertinent information from a wide range of interested groups, using a range of survey research methods. This study sought input from individuals and groups at various levels in the schools, system, and community. Research techniques used included personal and group interviews, mail and electronic surveys, and document review and analysis. Draft findings were reviewed by key stakeholders for accuracy before disseminating the report to all interested parties.

Groups Sampled

Groups were sampled at the CPS building level, at the CPS system level, and at the community/state/national level. By including input obtained from each of these levels and from many interested parties at each level, the study presents a balanced, rich description of telecommunications and its uses in supporting Chicago reform.

Building level. In this study, information was obtained by surveying building administrators at all 604 CPS buildings. This process resulted in a broad-based description of telecommunications resources. Furthermore, detailed information was obtained from a sub-sample of 20 Chicago schools. A list of the 20 schools is in Appendix 1. The 20 schools were chosen to obtain a cross section of: 1) geographic locations; 2) race/ethnicity; 3) elementary and secondary schools; 4) curricular and instructional programs; and 5) Project CANAL and non-project schools. The following groups were contacted in the 20 schools:

- Local School Councils
- Principals
- Classroom teachers
- Resource teachers

CPS system level. Information was also obtained at the Chicago Public Schools level from the following individuals:

- Deputy Superintendent, Curriculum and Instruction
- Assistant Superintendent, Department of Curriculum
- Assistant Superintendent, Department of Vocational and Technical Education
- Director, Bureau of Telecommunications and Broadcasting
- Director, Bureau of Staff Development
- Director, Department of Information Processing
- Director, Bureau of Language Arts
- Director, Bureau of Mathematics
- Director, Bureau of Science
- Director, Bureau of Social Studies
- Director, Special Education Coordination and Assistance
- Director, Early Childhood Programs
- Director, Project CANAL
- Director, Department of Warehousing and Distribution
- Coordinator, Language and Cultural Education
- President, The Chicago Principals' Association
- Assistant to the President for Educational Issues, Chicago Teachers' Union

Community/state/national level. Input was obtained from the following individuals, groups, and documents in the City of Chicago, the State of Illinois, and in the nation:

- Deputy Mayor for Education
- Cable Administrator, Office of Cable Communications
- 65 community organizations (see Appendix 1 for list)
- Director, Illinois State Educational Service Center #6
- PA 85-1418 and related documents
- State universities (see Appendix 1 for list)
- Telecommunication vendors: Apple Computers, IBM, UNISYS, Ti-In Network, Group W Cable, Chicago Cable TV, PBS, and Transparent Schools program at Vanderbilt University
- Other urban districts in the nation: National Educational Technology Trust (Dallas, New York, Philadelphia, Chicago) and the Educational Telecommunication Network (Los Angeles County)

Instruments and Procedures

Survey research techniques used included semi-structured interviews, structured interviews, mail surveys, and electronically distributed surveys. Qualitative document analysis were performed on legislative documents, business plans

for various CPS bureaus and departments, vendor information, and research reports. In the following paragraphs, instruments used are identified by level and sample surveyed, sample size, and type of analysis (qualitative or quantitative) used for findings.

Building level. A systemwide survey was conducted of all schools to describe the telecommunications resources in the district. The Survey of School-Based Telecommunications and Related Hardware was transmitted through the CPS electronic bulletin board system. Responses were entered at each building by computers and sent by modem to the central network. Of the 604 schools, 280 schools participated in the survey. A copy of the questions is included in Appendix 1. A copy of the statistical analysis of findings from this survey is in Appendix 2.

In addition to a survey of all schools, an intensive study was made of 20 CPS schools. The following methodologies were used to study these 20 schools:

- Principal individual structured interview: 19 of the 20 principals (or their designees) participated in a 20 question interview. Survey Form is in Appendix 1. Thirteen were conducted in person and the remaining six were done over the telephone. The twentieth principal responded to the majority of the questions over the course of several telephone conversations.
- Classroom teacher structured interview: 50 classroom teachers from the 20 schools participated in a seven-question telephone interview. The interview form is in Appendix 1. Results from the interviews were tabulated and summarized in the report.
- Resource teacher structured interview: 11 building resource teachers (IRIP, RIP, IMIP, bi-lingual, etc.) and department chairs from the 20 schools participated in a 11-question telephone interview. The interview form is in Appendix 1. Results from the interviews were tabulated and summarized in the report.
- Teacher survey: Principals of the 20 schools were given copies of a five-question survey to distribute to all faculty members in their schools. A total of 493 surveys were returned from teachers in 16 of the schools. A copy of the survey form is in Appendix 1. The computer analysis of teacher survey findings is in Appendix 3.
- Local School Council mail survey: An eight-item survey was mailed to the presidents of the 20 Local School Councils. A total of 16 forms were returned. The interview form is in Appendix 1. Results from the interviews were tabulated and summarized in the report.

-- Local School Council semi-structured interview: A luncheon meeting was held on January 11, 1990, to which Local School Council presidents and building principals from the sample of 20 schools were invited. Nineteen of the 20 schools were represented by the president and principal or their designees. A group interview/discussion was conducted to gather information on training needs of the councils. The comments were summarized and included in this report.

CPS system level. Semi-structured interviews were conducted with each of the individuals listed earlier. These interviews were conducted in person or by telephone when distance or schedules did not permit personal meetings. Several interviews were conducted with key CPS staff, such as the Director of the Bureau of Telecommunications and Broadcasting.

A schedule of issues was identified by NCREL staff prior to the interviews. Notes were taken of comments made by the respondent. A qualitative summary was made for each of the survey issues and included in this report. Supplementary documents were obtained from those interviewed, such as bureau business plans for 1990 and beyond. These documents were reviewed and relevant aspects were abstracted for the report.

Community/state/national level. The legislative record for PA 85-1418 and related documents were reviewed to identify reform activities that might be aided by telecommunications. This information guided the formulation of interview or survey questions for groups involved in these activities. This information was also abstracted and included in this report.

Semi-structured interviews were conducted with the following individuals: the Deputy Mayor for Education, representatives from the Mayor's Office of Cable Communications, the Director of Educational Service Center #6, the telecommunications vendors listed earlier, and representatives from the urban telecommunications organizations listed earlier. These interviews were conducted in person or by telephone when distance or schedules did not permit personal meetings.

A schedule of issues was identified by NCREL staff prior to the interviews. Notes were taken of comments made by the respondent. A qualitative summary was made for each of the survey issues and included in this report. Supplementary documents were obtained from those interviewed. These documents were reviewed and relevant aspects were abstracted for the report.

Because of the number of community organizations surveyed, a multi-wave structured interview and survey strategy was adopted. First, a letter was sent to the heads of each organization informing them of the Telecommunications study and asking them to

participate in an interview. A total of 27 survey responses were obtained from the 65 organizations. A qualitative summary was made for each of the survey responses and included in this report. A copy of the survey are in Appendix 1.

A four-item survey was mailed to the Deans of the Schools of Education at the Illinois universities sampled. The cover letter for the survey asked that the survey form be copied and distributed to all faculty members at the institution who were directing programs providing professional development training to CPS teachers. Nineteen surveys were returned representing 8 institutions. A copy of the survey is in Appendix 1.

Reporting of Findings

Study findings were summarized by NCREL staff into a draft report. This draft report was reviewed by key CPS staff. Reviewers were asked to examine the report for accuracy and completeness. They were asked to suggest recommendations based on the findings. They were also asked to identify strategies for implementing study recommendations. Many helpful suggestions were made by review groups. However, the NCREL study staff retained final editorial responsibility for the report.

III

THE POTENTIAL OF TELECOMMUNICATIONS FOR SCHOOLS

In hubs of educational innovation throughout the country, telecommunications has already taken on the challenge of improving student achievement, and in some areas, increasing the number of staff development options. This section looks at why telecommunications is becoming such a powerful educational tool and examines common configurations used by school districts. Furthermore, this section identifies relevant criteria to use when assessing how well typical telecommunication systems can support local Chicago schools' needs for professional development, LSC training, and parent/community outreach.

Why Telecommunications?

Telecommunications-supported education has rapidly become an imperative for school systems that wish to flourish in an information-based society. Once viewed as a luxury for affluent school districts, telecommunications has become the most prudent and logical solution to many common education problems, including lack of equity in course offerings, dissatisfaction with present staff development activities, and inefficiencies in the generation and dissemination of data and knowledge. Increasingly, it is no longer a question of if school systems will make increased use of telecommunications but when they will begin to do so.

A cost-effective alternative. Technology is one of the few elements in our economy that becomes less expensive over time. As the cost of food, clothing, and transportation escalate, electronic items, such as personal computers and VCRs, have decreased in price and yet become more powerful and flexible tools. Pocket calculators, for example, were once a high ticket instrument sold only in specialty stores, and now they are a common "impulse item" at discount store check-out counters. Similarly, a fixed-mount satellite dish cost about \$33,000 in 1980; it is now possible to purchase a monitor driven, polar mount Satellite system with Ku and C band for \$3,000 to \$5,000. Additionally, satellite dishes can be purchased at such familiar stores as Radio Shack and Sears Roebuck.

Although many educators are put off by the start-up costs of implementing electronic communication systems, these costs must be balanced against the expenses involved in more traditional approaches that include travel, substitutes, duplication of services, and lost time due to delays in receiving information.

Equity. Telecommunications has the potential for facilitating more equitable access to educational opportunities and resources for all it serves. That is, telecommunications can empower all, filling in for scarce resources; linking the isolated and immobile; providing information and expert knowledge to the uninformed; and adjusting materials to the specific interests, learning styles, and/or cultures of each receiver. (Facilitating Technology Based Restructuring of Schools: A Regional Lab's Role, David Foster, 1989)

While there are many ways that telecommunications can be used to promote equity in education, three are of particular relevance to this study:

- 1) Providing uniform access to information and resources across the district
- 2) Providing equitable access to training for LSC members and for education professionals
- 3) Creating districtwide communications and networking capabilities that are accessible to all

Access to information. Schools, to accomplish their goals in an information age, must have access to the most up-to-date information, research, and resources. No longer are schools operating in a predominantly industrial time, when information was basically procedural, incremental, and slow to change. The pace is quickening and today's procedures can become obsolete almost overnight. Schools, like other societal institutions, need frequent updates. More and more, the world is depending on fast-paced technologies, such as the fax, computers, and satellites to relay data and other resources quickly and efficiently.

Access to training. Using telecommunications for distance learning is a strategy that has been heavily explored and utilized by rural and isolated schools around the country for the past five years. Distance learning is defined as the linking of a teacher and students in several geographic locations via technology that allows for interaction (Linking for Learning, OTA, 1989). However, only recently have people begun to explore the use of distance learning strategies and technologies to serve urban audiences consisting not only of schoolchildren, but of teachers, administrators, parents, and the broader community.

This study underscores the need to look at bridging "distances"--both geographic and cultural--that exist between needed training resources and the education professionals, parents, and community residents who need them in cities. Indeed, getting the same training to Spanish-speaking parents in Pilsen and to English-speaking parents in Rogers Park represents the spanning of

considerable distance. Similarly, teachers in inner-city schools and those located on the outskirts of the city may be as far apart in travel time as two rural communities are in actual miles.

Also, for the large number of professionals who are parents, telecommunications can bridge the gap between their dual roles. Too often they are forced to choose between family responsibilities and opportunities for professional training. While parents may be unable to participate in staff development activities that take them away from home for several hours, many might be eager to take part if telecommunications could bring those activities into their own home.

Telecommunications, then, offers the potential to provide all educators with equal access to good training. This cost effective method can maximize options and choices for all.

Communication and networking. The isolation of teachers is well documented. Too often, teachers spend entire days at school interacting only with students. Thus, both time and distance may limit their opportunities to have professional discourse with colleagues. Frequently, professionals have little or no opportunity to share problems and solutions with others who work with similar students. Indeed, many educators have already recognized that cooperation and collaboration among peers are critical characteristics of the most effective student learning activities and staff development programs. Yet, most school districts still rely on information systems that are inefficient, obsolete, and that sometimes even obstruct rather than facilitate dialogue. Telecommunications allows for the breakdown of geographic barriers and enables teachers to collaborate with colleagues around the corner or across the city. Electronic communication can take place among individuals, entire school faculties, or interest groups, e.g. math teachers.

In summary, telecommunications has the potential to empower educators and council members in some significant ways. It can provide access to information on new instructional ideas and strategies, and training to implement these techniques. In addition, students of all races, classes, and cultures, as well as those with unique intellectual and physical needs, can be given equal access to educational opportunities with the assistance of telecommunications. Moreover, opportunities exist for communication that spans cultures, languages, and great distances.

Typical Telecommunication Systems

A wide range of school-based telecommunication systems have evolved in this country. This diversity is the result of a number of conditions: differences in local and state policies

for education; variations in funding patterns; divergence in educational needs and goals; and rapidly advancing options in telecommunication technologies. Almost every possible combination of technology has been used somewhere by a school district. And, as new technologies are developed, additional configurations are tried. In order to make prudent decisions about the type of system that could and should be used to support Chicago's reform effort, it is essential to have a basic understanding of what is possible. Typically, telecommunication systems are distinguished by two principal characteristics: 1) direction of information flow; and 2) type of information provided.

Direction of information flow. Systems can be characterized by the dominant flow of information: one-way that includes radio and broadcast TV versus two-way that includes interactive satellite transmissions, telephones, and computers linked through networks. One-way systems often result in top-down communication styles. In a top-down mode of communication, the concerns and values of the central office staff can predominate. As a result there may be great uniformity in the services and programs offered through the system. Thus, in a large district serving diverse neighborhoods and schools, this top-down communication style may be useful at times and not desirable at others. For disseminating information that is consistent, uniformity is an important characteristic. All people accessing the system need the same information and the system is usually better served if they get it. However, for localized needs that are tied to variable circumstances, uniformity may be neither necessary nor desirable. In those instances, a top-down communication style may limit the local usefulness of a telecommunications system.

In contrast, two-way telecommunication systems tend to encourage more bottom-up and lateral communication styles. Such systems encourage sensitivity to a wide diversity of interests and needs. Local schools can more easily request and respond to services and programming. They can get personal attention for specific questions. They can discuss interests and concerns with other schools having similar interests. And, if a school develops or locates a service or program that they find interesting and helpful, they can share this information with other schools.

For the most part, Chicago school reform would seem to be better served by two-way communication systems, since they allow for local control and direction of programs and services. Yet one-way electronic services can also stay sensitive to the local level if they are carefully selected and managed at the local level. That is, local users must have a number of programming options available to them over one way systems. They must also be able to manage both their use of the system and the program and service choices available to them over that system.

Type of information provided. Systems can also be characterized by the type of information they provide--data, sound, or image. Data typically includes written text, perhaps with some graphics or digitalized still frame information. Sound typically means speech. And image usually includes still and motion video accompanied by sound. Exhibit 3-1 lists typical, but not exhaustive, school-based telecommunication configurations.

Exhibit 3-1.

Typical Telecommunications Configurations

One-way Communication

Data -- stand-alone micro computer or local area networks and electronic chalkboards

Sound -- radio, cassette tape recordings, one-way use of telephone for audio lectures

Image -- live or prerecorded programs distributed by broadcast or narrowcast tv, wire or fiber optic cable, microwave, or satellite (top-down broadcast, centralized communication); prerecorded programs on tape for local VCR replay (electronic library)

Two-way Communication

Data-Data -- remote access to central computer resources (communication with central system files and programs, but not with other distal users); computer network directly between distal users or communication through a central computer acting as a bulletin board or mailbox (mix of use of central computer resources and access to distributed audience), facsimile transmission

Sound-Sound -- telephone link for two or more station communication

Image-Sound -- one-way video and audio transmission from a central instructor with continuous or occasional telephone communication two-way between distal students and the teacher for student comments and questions

Image-Image--video and audio between two locations (not usually multi-locations as is more typical with other models)

Criteria for Assessing Telecommunication Systems

With such a wide array of available options, how does the telecommunications' shopper make a wise choice? One approach is to establish criteria for a system that matches the needs and priorities of the educational consumer. For this feasibility study, both professional development and Local School Council concerns have guided the selection of criteria. Only when systems meet the needs and concerns of these users can technology systems be installed and used with positive impact on the schools.

This study, therefore, recommends that five broad criteria be considered when evaluating telecommunication systems for the Chicago public schools. Telecommunication systems should be:

1. Responsive to local concerns
2. Equitable in providing access to audiences
3. Feasible to install and use
4. Capable of providing image, sound, or data information as appropriate
5. Effective in achieving educational outcomes

1. Responsive to Local Concerns

In the Chicago Public Schools, telecommunication systems must be designed to support school reform initiatives. The systems should strengthen both Local School Councils as well as principals and teachers in administering local schools and promoting greater learning for students in those schools. This means that the selection of content for training programs and the development of other areas of assistance must be responsive to local school needs and priorities. Also, the scheduling and management of the training and services should support and strengthen local councils and school-based professionals. Local users should be able to ask questions, make comments, and have the training or services modified to fit local needs and conditions.

Selection and tailoring of information. Given the diverse settings of schools in CPS, it is impossible for one set of materials to satisfy the professional development and LSC needs and priorities of all, or even a majority, of its schools. Telecommunication systems should provide users the freedom to select information to fit their needs and concerns. Furthermore, telecommunication courses and services will be more useful to

schools to the degree that the information they transmit can be modified or tailored to address conditions in specific schools.

Location of control. Local school control is strengthened when schedules and strategies for providing information conform to local priorities. When local users have input to system management, they will probably use and benefit from the system. However, school involvement and system usefulness may be weakened when schedules are rigidly fixed centrally. Central control typically requires selecting issues of common interest to most schools; therefore, unique concerns of schools may not be addressed. Also, central control usually requires long lead times to plan events; therefore programs may be less responsive to acute, emerging needs. Yet, the design of such centralized planning and management can be influenced by local users and should certainly be evaluated for its responsiveness to local concerns.

Degree of interactivity. Telecommunication systems are more responsive when they enable and encourage users to interact with each other, for example, to ask questions and make comments about the training or service provided; to select information and to make requests. Ease of asking questions, time delays between asking questions and receiving responses, and one-on-one access to a teacher or expert are all aspects of interactivity. Systems are more interactive when user comments and questions are dynamically incorporated into the training or service provided.

2. Equitable Access to Resources

Telecommunication systems should provide groups in all schools equitable access to system resources. Resource differences between Chicago city communities should be deemphasized rather than accentuated by any telecommunication system. Systems should be equally useful to all schools.

Equal distribution of hardware and access to resources. All schools in CPS should have equal access to telecommunications resources. Any plan should, therefore, address the issue of hardware equity. That is, is there a plan for getting a minimum level of hardware to all schools?

Training to bring all users to same level of access. All schools should have equal ability to utilize the resources provided through the system. This means that training and information about the system should be provided to all users. It also means that training should be adapted to fit the interests and background of different groups of users.

Fit of information and services to diverse schools.

Telecommunication systems should support diverse programming and uses so that schools with differing needs can each be well served

by the same system. This implies being able to provide a wide range of services and programs through one system.

3. Feasible to Install and Easy to Use

Telecommunication systems are feasible to install and maintain if they are easy to use, require commonly available technical expertise, and are economical.

Ease of use. To be feasible, telecommunications systems must be easy to use. Therefore, certain criteria must be attended to if telecommunications are to become an agent of school reform. First, technology should be user friendly. This applies to hardware and software, as well as products of communications. If hardware and software are not easy to use, it simply will not be used by teachers, administrators, students, or community people. It is absolutely imperative that users be involved in planning for the use of telecommunication technologies because they will have to operate it on a daily basis. Planning without their input is an invitation for passivity and disinterest.

Technical expertise required. Users should be able to access the system without substantial instruction in system operation. The system should require only commonly available or easily attainable skills and knowledge to operate. Sufficient technical expertise should already be available within the school and CPS to install and maintain the system. If a relatively complicated system is used, then greater resources need to be devoted to user training.

Cost for creating and maintaining systems. The costs of hardware, installation, programming, and maintenance should be included as part of budgetary planning. The cost should consider staff time to operate system, cost of equipment and communication lines, maintenance, and programs and services delivered on the system. The systems should be more cost-effective in achieving professional, educational, and community outreach goals than other means for achieving these same goals.

Security of the system. Provisions should be made to protect the hardware and materials used in the schools. Computer data files and access to computer resources should also be protected.

4. Provide Image, Sound, or Data Information as Appropriate

A fourth area for evaluating telecommunication systems is how well they provide the type of information needed to meet the communication need. For some uses, full image and sound information is necessary to meet the needs of the situation. For example, if principals were being trained on how to conduct a performance evaluation interview with teachers, it would be more helpful to show a principal and teacher modeling the principles

being taught. That is, live or video modeling would be more effective than just reading about how these skills might be applied. Furthermore, it may be more helpful still if principals could then ask experts specific questions about the applied techniques.

5. Effective in Achieving Outcomes

Experience and research have shown that appropriately used telecommunication systems can be very effective and economical. However, the question must be asked: Is this implementation effective and economical for these needs in this situation? The fact that telecommunications has been very effective in some situations does not guarantee that a specific telecommunication system will be effective in educational situations in general, or in the Chicago Public Schools in particular. Therefore, the overriding question for this study is: Can the use of telecommunications ultimately lead to improved staff development, LSC training, and student achievement in Chicago's schools?

Measuring outcomes assumes system implementation. A system must be operating for a reasonable length of time before its outcomes can be measured. Most benefits from telecommunication systems become evident only after the system is operational for a year or longer at a school. Premature attempts at assessment may, therefore, underestimate or entirely miss important outcomes. More importantly, a premature preoccupation with evaluation may divert attention from information that is essential in guiding the system to achieving substantial outcomes.

Formative information is very important during the early stages of system design and implementation. Monitoring how well activities and events are being carried out will help guide systems to eventually produce satisfactory outcomes. Thus, before any hardware is installed, the system must be matched to stakeholder needs. In designing the system, one should seek user advice to improve the usefulness of services already provided and services planned for the future. When this is done, the foundation is laid for having program outcomes worth measuring.

Potential professional development outcomes. Telecommunication systems can, in principle, achieve all of the professional education outcomes that might be achieved through any other instructional system. Depending on the specific course of instruction and the particular use of telecommunication technology, it may be appropriate to expect outcomes such as:

- * Greater understanding of effective educational practices to solve specific problems
- * Stronger sense of professionalism and increased commitment to improvement
- * Better use of classroom time
- * New methods for promoting student learning
- * Sharing of innovative curriculum materials and practices with educators at other schools
- * Observation of innovative practices in settings similar to the educator's own school
- * Networking with other educators who have similar concerns
- * Easier access to educational materials and resources

Potential Local School Council and community outreach outcomes. Just as a wide range of professional development outcomes can be addressed through telecommunication systems, a wide range of community outreach outcomes can also be achieved through such systems. Depending on the specific applications, outcomes might include:

- * Improved communication with neighborhood constituencies about school programs and accomplishments
- * Better use of CPS resources to administer local schools
- * Access to expert advice on a wide range of issues
- * Access to data about a local school's students, budgets, etc.
- * Observation of effective administrative practices in settings similar to the local school
- * Communication and networking with other schools to share common concerns, information about effective solutions, plans for future actions, etc.

- * Communication with resources and groups outside of CPS, such as at community groups, universities, etc.
- * Easier parent access to teachers and information about local school activities

Potential student outcomes. Students can also be served in many ways by telecommunications. Included in the new vision of learning that telecommunications can create are these possibilities:

- * Access to a broader range of course offerings for all students, not just those in magnet programs
- * Local access to university level courses
- * Participation in reality-based learning experiences, for example, practicing a foreign language via hook-ups with residents of another country, or participating in real scientific experiments through hook-ups with scientists working at laboratories such as Fermi or Argonne
- * Participation in educational demonstrations that could not economically be duplicated at the school site
- * Participation in time-lapse simulations
- * Participation in projects with students who live in other cities and states

In conclusion, this section of the report has outlined the potential that telecommunications has for use in school settings. Although the report has described in detail the numerous configurations that such systems can assume and examined criteria that should be applied to the use of telecommunications, the ultimate test for any use of telecommunication systems in school districts has to be whether the technology promotes greater learning opportunities for students, teachers, administrators, and the overall community. That is, are professional development activities for teachers and administrators going to be supported and sustained better by the use of telecommunications? Will parents and the community become empowered by the increased availability of educational information and training that is possible through telecommunication networks? And, are students going to have more curricular options as well as greater opportunities for instruction that is geared to their individual needs?

In schools, the use of telecommunication technologies should be predicated on whether such applications will promote and facilitate problem solving, communication, collaborative learning, thinking and reflection, and application of what is learned to real life tasks. This means selecting telecommunications systems for their ability to customize

learning in these areas and for their ability to expose users to expertise both inside and outside the school system. It also means training users to operate the technologies in an active, not passive way.

Increasingly, school reform around the nation is moving toward organizational models that are based on site-based management and local empowerment. As school districts try to "unpackage" the present schooling process and pass responsibility for learning to local stakeholders, uses of technology must support this process. Yet we know that the greatest impediment to this localized decisionmaking is inaccessibility to essential information and lack of knowledge about how to use the tools of telecommunication.

LOCAL SCHOOL COUNCILS AND PARENT/COMMUNITY OUTREACH

The passing of PA 85-1418 has transformed Chicago into a city abuzz with school reform activities. This legislation resulted from the work of a coalition of Chicago's politicians, business leaders, teachers and administrators, parents, and community groups, who worked together over several years. The outcome of their work is a school reform package that is built on the premise that parents and communities, working with school building professionals, are essential to making schools work.

Under the legislation, elected Local School Councils at each of the city's schools are to become decisionmakers and planners for school improvement. Standing in support of these councils are community-based groups, many of which have a long history of working to create and sustain viable neighborhoods across the city. Together, these two groups--LSCs and community groups--represent both an important resource for school reform as well as a critical area of need for information and training. Some of the community groups are well prepared to deal with educational issues and to support their constituencies in participating in school reform. Others are not. Similarly, many of the elected LSCs are finding themselves adequately prepared to assume leadership roles in school change and others are not. Helping to support these groups (who are so central to the success of reform) makes parent and community outreach important areas to serve with telecommunications. Moreover, the fact that there are over 540 LSCs and over 65 major community groups that could access services, resources, information, and training makes telecommunications a logical strategy to explore.

This section of the report describes the activities of community organizations and Local School Councils. For this study, a sample of 27 community organizers and a purposive sample of LSC presidents from 20 schools were asked about activities they engaged in both before and after the LSC elections in October. (See Appendix 1 for survey and interview questions.) The overall purpose of these surveys and interviews was to assess the kind of support these groups are receiving and to identify priority areas of need--in information, in training, and in communication. This section begins with a description of the community organizations because they represent a broad community framework within which the LSCs are operating. A description of the Local School Councils follows, and the section concludes with a discussion of how telecommunications might help support the LSCs and increase outreach to parents and community residents.

Overview of Findings

- o The massive participation of community organizations in Chicago's school reform movement has created 540 Local School Councils and a new, expanded, and more powerful role for principals as leaders at the local school level. This section of the study surveys how these two changes are having important implications for information dissemination, for training of parents and community residents who are serving on LSCs, and for communication and networking of LSC members with one another and with the people who elected them.
- o This study found that, in a sample of 20 schools across the city, most LSCs were turning to Chicago Public Schools principals and teachers and to the central office at Pershing Road for support to perform the tasks outlined in PA 45-1418. They are looking to education professionals to help them understand and construct a budget; make decisions about curriculum and instruction; interpret the reform legislation; construct school improvement plans; and understand and implement federal and state guidelines.
- o The Chicago Public Schools, in mobilizing to hold the elections and in conducting the regular business of schooling, has not been able to develop an infrastructure nor a set of procedures for helping its professional staff to support the needs of Local School Councils. There are few mechanisms for supplying LSCs with information; for answering questions and making clarifications; for conducting the 30 hours of training mandated by the legislation; for making announcements; and for advertising meetings and other events. In short, these areas all represent shortfalls in a rapidly changing public school environment that has had to gear up for change rapidly.

Community Organizations and School Reform

More than 65 organizations have been involved with lobbying for the reform legislation and with supporting local communities to respond to that legislation. During this study, NCREL collected interview data from 27 of these groups, about 42% of the total. On initial analysis, these organizations serve a range of constituencies and offer an even wider range of services and resources. However, some general patterns emerge upon closer scrutiny, especially when the groups are examined through the lens of school reform.

Organizational Goals

Of the 27 community organizations interviewed, all had been involved in the recent spate of school reform activities that resulted in PA 45-1418 and the election of Local School Councils. Yet, the primary purposes of most of the groups were not oriented toward educational reform. Rather, they were more broadly based and focused on supplying information and technical assistance in basic needs areas, such as social services to the poor, family support, neighborhood renewal and development, cultural activities, language support to recent immigrants, employment assistance, and health. A major purpose of many of these groups was building local leadership so that neighborhoods could organize and make changes for themselves. However, in response to the teacher strike of 1987, most of these essentially social service groups found themselves in a political situation that required developing and expanding the educational services they were providing to their communities.

A small number of the groups interviewed had goals and objectives that were narrowly focused on schools and the reform of education. Of these groups, some were organized in direct response to the 1987 teacher strike. Most were small cadres of parents and community members who had been working in local schools (or outside of them) to bring about improvements. The teacher strike gave these groups a renewed focus and stronger local support to do something about the schools.

An even smaller set of groups were citywide organizations that had a long history of dealing with the reform of Chicago's schools. One of the oldest was an organization that had been a resource provider and activist-oriented group since the late 1930s. Two others were groups that had emerged to supply parents and children with knowledge and advocacy services, helping parents and children secure their rights when they dealt with the Chicago school system. These two groups have emerged as school reform centers for the city, assisting community organizations, local schools, and parents with information and training. For the most part, these two groups focus on high level research, policy, advocacy, and training services that people all over the city might need.

School reform -- a citywide goal. Indeed, it is not an exaggeration to say that school reform represents the most significant activity that Chicago's neighborhood and community groups have been involved in for the past two years. It is the one issue that has created a cross-city coalition for groups that had previously been narrowly focused on working within geographic boundaries for basically local outcomes.

A focus on neighborhoods. Yet it is important to note that the coalition is a tentative and fragile one. Although it is broadly focused on education and the school system, most organizations and their members continue to think in terms of individual schools within their neighborhoods. Indeed this emphasis is probably one of the reasons why the reform legislation itself enjoyed such widespread support from such disparate groups around the city. The legislation puts the locus of change on the local school and, in the process, dismantles the previous locus of power--the bureaucracy associated with the overall school system.

Targeted Constituents

The predominant pattern of membership in these organizations is focused on the local neighborhood or community, with community residents and institutions belonging to and/or being served by one or more organizations. A second pattern of membership targets cultural and language groups. A third pattern tends to be larger and better funded citywide organizations, serving a broad constituency all over the city, usually parents and schoolchildren.

LSCs - A new constituency. A general characteristic of almost all the community organizations is service to the newly elected Local School Councils. The LSCs represent perhaps the narrowest target audience for any of these community organizations, and how they serve the LSCs varies greatly. A few act only as advisors, providing very little technical assistance; others offer more extensive support and assistance. Only a few of these groups seem to have considered the local school as a direct constituent before the reform legislation.

However, school reform has made reaching the LSC as a target audience a major goal of many community organizations. Many feel responsible for the parent and community members of these councils. Indeed, many staff and members from these groups were elected to the LSCs. A member of one group even sits on the Interim Board of Education. Also, many of the groups see the LSC as a conduit into an educational system that previously seemed impenetrable--even at the local school level.

Capacity to Effect Change

How are these community organizations continuing to support the newly elected LSCs? To what extent do community-based organizations have the resources to implement and support school reform? And what resources do they have to communicate and disseminate school reform information?

Funding. The fact that community organizations were able to mobilize Chicago residents to support the passing of the school reform legislation and that over 1/3 of the city's residents voted in the school elections makes a strong case for the impact these groups can and do have on local communities. However, funding and staffing are rapidly becoming problems for these groups. Initially, grants from the business community through the Leadership for Quality Education (LQE) gave many of these groups the resources they needed to assist with school reform. Using newly hired staff members and printed material financed by LQE, many community organizations gained access to information about how schools are organized and what people who run them need to know and do. This information had previously been difficult to obtain by people in the community, and now it was readily available. However, many groups say that their LQE monies have run out and that they need additional funding and staff both to continue and to broaden their work with school reform in the community.

Space for meetings. It seems that the easiest resource that most community organizations can provide to the LSCs is meeting space, both for LSC meetings and for training and workshops. Several groups mentioned that they are providing a forum for LSC members to come and discuss issues, receive training, and to network with other LSC members in the community. Community organizations--as neighborhoods hubs--appear to be an especially good resource for this kind of networking. They have the kind of broad connections within and across communities to break down the barriers that might prevent such linkages.

Communication and dissemination. Neighborhood communication and dissemination are common activities for many of the community-based organizations interviewed for this study. However, because they typically serve nearby residents, most use word-of-mouth, or print strategies, such as newsletters and flyers, to get information around the community. As a result, most were not accustomed to thinking of communication and dissemination in terms of telecommunications. Indeed, for most, telecommunication resources are sparse, and knowledge of their use is scanty. In the neighborhoods, only about half of the organizations had computers, and these are mainly used for word processing. In other hardware categories, most had very little, including access to TVs and VCRs at the office location. When asked about telecommunications, most tended to say they had nothing.

However, a number of community organizers were aware of the potential uses of telecommunications technologies. A couple of groups had experimented with cable TV shows but none had really followed through with them. The group with the most success in TV was a language-oriented citywide group that had the volunteer services of a major TV news anchor and reporter to support their efforts. Apparently, however, some of the citywide educational

research and advocacy groups are beginning to think about using videos to disseminate training, but they have not developed this strategy yet. Most groups cited lack of resources--both human and hardware--as the primary reason they had not been using telecommunications for communication and dissemination.

School Reform Activities

When community organizations were asked to describe their educational activities and strategies, the most often-cited item was the support of Local School Councils. Serving on an LSC has come to represent a high priority task for community people. It is an opportunity to directly influence and change schools, one of the most important neighborhood institutions. If schools have problems, communities--through their local councils--now have an official structure and the designated authority to work out solutions. It is a job not taken lightly. In fact, when one organization was asked how it served the LSCs, it said that its job was to "inform, instruct, and support" the councils.

To address this task, community organizations are trying to extend and expand the usual services they have been offering to their local communities. In general, they seem to want to offer information, instruction, and support for LSCs.

Local School Councils

PA 45-1418 designated the election of LSCs as the first major step of a restructuring plan for the Chicago Public Schools. These councils have been given broad policymaking power and duties in specific areas, such as appointment and evaluation of principals; development and monitoring of school improvement plans; oversight of school budgets; and evaluation of personnel use and other school policies and procedures.

On October 11 and 12, more than 300,000 parents, school staff, and community residents selected over 6,000 LSC members. These LSCs are now functioning as local boards of education for each of the city's schools. Not only have their general goals been outlined for them in the legislation, many are now beginning to map out their own specific goals. Twenty LSC presidents (at the sample schools) were surveyed and interviewed for this part of the study. The survey results indicate that while all accept the basic tenets of the legislation, many are moving beyond those "basics", adding their own local concerns and needs to the legislative agenda.

Goals of the Councils

One measure of the Local School Councils' goals is what training topics they consider most important. In general, most pointed to the legislation's directives. Accordingly, the budget and the school improvement plan were mentioned most often by the LSC presidents. Over one half of the survey respondents mentioned one or both of these as most important topics for training.

School reform -- a local lens. At a meeting of the same LSC presidents on January 11, NCREL asked: "What goals has your LSC identified as most important?" Answers were seldom directed to specific mandates from the legislation and seldom used legislative language. For example, instead of discussing school improvement plans, most LSC chairs talked about increasing student performance or achievement; about improving scores, attendance, and dropout rates; about improving instruction. Indeed, most of the discussion focused on school improvement goals that were very specific to specific school sites. One high school LSC president said that the LSC's first goal was to make the school the first choice of district students. Another felt that it needed a clear mission statement before it could move forward. Another wanted to develop a black history curriculum. Mostly, the answers defined school improvement through a local lens.

Within the larger framework of the legislation, the most often mentioned goal by LSC members was the need for LSCs to define their roles more clearly--in relationship to the school and to the principal. Many agreed with comments from some presidents that they did not want to do the principal's job. Several seemed to agree with one LSC's comment that the legislation had "promised much and given little," in terms of defining and supporting LSCs to understand and assume their appropriate position. In the open discussion on January 11, most seemed comfortable with defining their role as advisors and policymakers, and they seemed to want help with learning how to serve those functions.

However, and in spite of some degree of ambiguity, the LSC members seem to be taking their jobs very seriously. (Several noted that it takes a lot of time and energy, and that meetings tend to go on for a long time.) Many presidents expressed concern that roles and responsibilities be worked out carefully, because the most important outcome of this process is better educational opportunities for the children.

The legislation created Local School Councils with more than 4,000 parent and community members who need information, training, and communication to do their jobs effectively.

Unfortunately, according to many of these newly elected officials, the mechanisms to supply these needs are either lacking or difficult to access. Thus, whatever the broad goals of the legislation or the individual goals of the councils, an underlying and critical goal of these councils is to become as well prepared as possible to do their jobs. Both in written surveys and oral interviews, LSC chairs note that they are not adequately prepared to reach their goals for school improvement. Most cite incorrect, inconsistent, or unavailable information; little or no training; and lack of knowledge of what other LSCs

are doing and how they are solving similar problems. These are not goals that have been addressed by the legislation nor by support mechanisms implemented by the CPS central office to support legislation.

Targeted Constituents

The LSCs represent a very large audience for school related information, an audience that has been created by a legislative act. In the past, parents and the community had always represented a potential audience for such information, but they had never been empowered in specific ways to use the information.

What kind of audience are they? Two characteristics dominate this group. One, they are diverse. The people serving on the councils range from professionals, who possess excellent skills in budget processes, strategic planning, and personnel evaluation, to people who have limited basic educational skills or who may have limited use of the English language, or even limited literacy in their own language when printed materials are translated. Second, the LSC members have varying amounts of time to devote to school reform. They often have full-time jobs, either at home or in the business world. They may not have the freedom or resources to spend a great deal of their time being involved with schools--learning how to write budgets; how to interpret federal and state guidelines; how to negotiate and execute a performance contract.

Choices. These characteristics mean that the LSCs are not a monolithic audience for training and outreach. Some probably need a great deal of information and training on a variety of topics. Others may need very little. It would not be logical or efficient, therefore, to subject all LSC members to the same amount and type of training and information. Yet all of them should have access to the same information and the same quality of training. In short, they need consistent, equitable choices about what training to use and when to use it. The when is particularly important because all of the LSC members are fitting this job into their lives. They need to have choices about how to do that.

In addition, LSCs are responsible to a broader set of constituencies, the people who elected them and charged them with the responsibility for improving their local schools. LSCs must then devise ways to reach this audience, an audience that is as diverse as themselves. When the next elections come up, the LSCs will want voters to know what they have accomplished and what problems they have encountered. Indeed, one way to interpret the legislation is that a broader spectrum of the community has been made responsible for what happens in schools. Only a well informed voter constituency can make wise choices in subsequent elections.

Diversity demands that a wide range of strategies be developed to get both educational information and training to LSCs and to the broader parent and community audience. Moreover, these strategies must be more than one-way strategies; the strategies must be interactive and responsive. Reaching the needed audiences must include the following:

- Canvassing LSCs, parents, and community residents for needs and concerns
- Developing their capacity to deal with educational problems
- Answering questions and dealing with problems
- Putting people in touch with one another to share information and resources
- Reaching people when it is convenient for them

Capacity to Effect Change

Do the LSCs have the information and training they need to reach their goals -- that is, make decisions about school policies and practices in the areas of budget; curriculum and instruction; school improvement; principal selection and evaluation; and personnel selection? When the LSC presidents were asked: "What does your LSC feel least qualified to do?," one woman answered: "Everything...we don't know anything..." Her cohorts quickly nodded agreement. From both survey responses and oral comments, it appears that LSCs have some strong feelings about what they don't know and how that lack of knowledge affects their abilities to perform. Several commented that they do not feel "trained" and one person made a clear distinction between "gathering information" and training.

Access to information. When LSCs were asked to identify sources of information, most identified the principal as their primary source, except for information about Principal Selection. (See Exhibit 4-1.) Of the surveyed LSCs, 77% to 92% relied upon the principal for all categories, with Budget being cited the most. In fact, there was a significant difference between the number of times LSCs relied on the principal for information and when they

relied on other sources, namely the Board of Education central office, teachers, community groups, training, printed material, and other LSC members. (See Exhibit 4-1.) Although the Board of Education central office was the next most frequently cited source, several respondents noted that the central office was considered to be "obstructionist" or "negative." At the January meeting, many presidents commented on how slow the central office had been in responding to questions and providing needed documents and guidelines. Still, LSCs feel that they need access to information and resources housed at Pershing Road. For most, however, principals seem to represent a closer and, perhaps, more cooperative source of this same information. Several also commented that it is the principal who helps them decipher guidelines, follow correct procedures, and, in short, keep the school working as they learn.

Exhibit 4-1.
Where Local School Councils Go for Information*

Source (total)	Type of Information Wanted					
	Budget	Legisla- tion	Curr & Instruct	School Imp Plan	Guide- lines	Principal Selection
Principal (76)	15	13	14	14	13	7
Board of Education Central Office (56)	11	11	8	7	9	10
Teachers (35)	4	3	10	9	4	5
Printed Material (37)	9	8	5	4	6	5
Training (28)	5	6	3	6	4	4
Other LSC Members (27)	7	4	3	4	4	5
Community Group (16)	2	5	1	2	3	3
TOTAL	53	50	44	46	43	39

* from study sample of 20 schools with 16 responding to this survey

For all categories of information, LSCs are most dependent on principals for their information. So far, this reliance does not appear to be problematic. Indeed, it is not unlike any expected relationship between a Board of Directors and an Executive Director. Accordingly, many LSC presidents commented that they expect to depend on education professionals for important information and interpretation of Board policies. However, assuring consistent and timely access to this information does seem to need further structure and support.

Reliance on community organizations. Surprisingly, answers from the survey suggested that many LSCs do not have many connections with community organizations. When asked: "Which community organization (if any) is working with your LSC for training?," most answered "none." Also, community organizations received the lowest number of responses as information providers. This low response pattern implies that most LSCs are not depending upon or even seeing community organizations as major sources of information to help them reach their goals.

However, at the January meeting, a majority of LSC presidents raised their hands affirmatively in response to the question: "How many of you are working with community organizations?" Apparently, community organizations are seen in their more traditional community service functions and not as official representatives of school reform. Yet, several organizations were listed as training groups on the written survey. Almost without exception, however, they tended to be the larger organizations that either had well-developed strategies for disseminating information, such as the Urban League or Operation PUSH's Rainbow Coalition, or they were connected to citywide education agencies, such as Designs for Change or The Chicago Panel on Public School Policy and Finance. So, while most community groups are not providing as much service as they would like or is needed, several of the city's larger groups are trying to maintain a close relationship with some LSCs.

Access to training. In the weeks and days leading up to the LSC elections, many parents and community residents received training from community groups. The Chicago Panel reported that it alone had trained about 1465 of these people. Indeed, when LSC presidents were asked if they had participated in this pre-election training, almost all indicated that they had. However, it appears that community groups are providing very little post-election training, except in a few areas of the city. Several groups are offering this training, but only to selected LSCs or groups of LSCs. In addition, schools that had ongoing relationships with highly structured programs such as CANAL and Northeastern's Project Co-Lead are receiving very comprehensive post-election training.

Beyond these, a number of LSCs are still not receiving training. In fact, only in January did the Board of Education officially release funding to pay for training, and some LSCs are therefore still exploring their choices for training. In general, this process is not proving to be a systematic one. Most who are still investigating indicated that they are using a number of different strategies to identify training. Once they identify it, however, the problems of finding a time and a place to complete the 30 hours stipulated by the legislation remain. Clearly, the capacity of LSCs to do their job is dependent on resolving these issues.

In addition to needing information and training, a number of LSC presidents indicated that they feel a need to communicate with other LSCs because they are all experiencing similar problems and could possibly learn problem-solving strategies, needed information, and sources of training from one another. Our survey of community organizations revealed one or two attempts to network LSCs by arranging neighborhood meetings. And, at the January meeting held for this study, a number of pens came out when one LSC president offered information about an upcoming meeting to establish an LSC Presidents Organization. Establishing such links among the LSCs would probably support consistency for the course of reform around the city as well as promote the spread of LSC strategies that work.

Access to resources. Concrete resources to assist LSCs with their needs appear to be extremely variable. Survey responses indicate that LSCs are heavily dependent on schools for meeting space and therefore restricted in the times they can meet for training. Many LSC presidents at the January meeting complained that important Board of Education meetings on state and federal guidelines, such as Chapter 1, are being held at morning and afternoon times that are inconvenient for working LSC members.

When LSCs were asked about use of telecommunications, most had not considered how this resource could be used to benefit themselves. Instead, most of their ideas were related to supporting student learning and instructional goals. Some felt that telecommunications could probably help with the exchange of information, but they were unsure. In answer to the question, "How might telecommunications help you achieve your goals?" one participant at the January meeting noted that the question was directed at issues that were greatly beyond the present consideration of LSCs. That is, the LSCs are working at a level of basic survival--meeting and solving immediate problems--and using telecommunications seems a more long range concern.

Activities of the Councils

The major activities and strategies of LSCs are focused on building their capacity to run their schools. For the most part, the activities of the councils seem very similar. Most are meeting once or twice a month. At their meetings, typical activities include forming sub-committees, identifying the school's most pressing problems, and beginning to devise plans for how to address them. Some express a great deal of concern about staying out of day-to-day operations and, instead, are defining their functions in the following terms: oversight; policymaking; participatory decisionmaking; and monitoring.

Training. In general, they express the desire for training in areas tied very closely to their roles as defined in the legislation--with budgets, school improvement plans, and principal selection cited as the most important topics for training. Although there are quite a few groups offering training programs in these areas, it is not clear that most LSCs either know of them or plan to use them. Moreover, it is also not clear how consistent the quality of these options are. Most importantly, a large number of LSCs are already working and making decisions without benefit of training--quality or otherwise. For some LSCs, who have strong ties to a knowledgeable community group or who are being supported by CANAL or Project Co-Lead, good training is available and is being used on a regular basis. For others, it is not.

Communication channels. Similar patterns of inconsistency characterize communication and networking among LSCs. As noted earlier, many want or see the need for developing communication channels among them, but no systematic plans exist to facilitate and coordinate LSC networking, except in limited situations. Even contact with nearby schools appears to be limited, except in a few instances. However, at the January meeting, several people mentioned that their LSCs are beginning to establish such contacts, especially in their neighborhoods.

Prospects for the Future

Both the spirit and letter of PA 45-1418 imparts some new educational goals and responsibilities to parents and local communities. On both the goals and the responsibilities, the legislation is quite specific:

- Empower both the principal and the Local School Council, thereby creating a Board of Directors/CEO-type relationship.

- Reassign financial resources so that local schools can make budgetary decisions that affect them.
- Shift responsibility for school improvement and student learning to a locally empowered governance structure that is based heavily on parents and community residents.

Assisting LSCs, parents, and citizens with, assuming these new goals and responsibilities will remain a continuing task in the weeks, months, and years ahead. In this study of community organizations and Local School Councils, it is clear that a number of problems and needs are emerging immediately during the implementation of the legislation. The following section evaluates how these problems and needs are being addressed by current practice and suggests ways they could be better supported through the use of telecommunications.

New Priorities

NCREL's interviews with both community organizers and Local School Council presidents reveal three areas of priority for these groups. These areas are: 1) information; 2) training; and 3) communication and networking. Some of these priorities are the results of the legislation; for example, requiring that LSCs develop and approve school improvement plans, and that they negotiate a performance contract with the principal and evaluate his/her performance under that contract. These responsibilities all require that LSC members have accurate and useful information about tasks with which they may be unfamiliar. Thus, they may need training to learn how these activities are best done. However, some of the priorities are emerging as more parents and local community residents become more involved in the educational process at their local schools and citywide. For example, networking with other LSCs is emerging as an important, but non-mandated, need from the council members themselves. Also, our interviews suggest that many LSCs have a number of localized concerns that are not mentioned in PA 45-1418.

Supporting Local School Councils. LSC members have found themselves confronted with tasks that require knowledge they may not have and skills they have not had to develop. Combined, these sets of circumstances are creating some critical school reform needs for the LSCs.

1. Gaining access to consistent, timely, and easily understood information

Information is an important area of need for LSC members. Ironically, LSC presidents noted that, at times, they are faced with a glut of information, while at other times, they are faced with a dearth of information. This discrepancy between need and

supply means that LSCs can never predict if they will have what they need to do their job. Often, the glut is so serious that they need help determining what is really important. However, getting prompt answers to questions and requests for clarification are often slow and unsatisfactory. During oral interviews with the LSC presidents, a large number complained about how difficult it is to get immediate responses to such needs.

Moreover, according to several LSC members, some of the information they receive is incorrect, inconsistent, or hard to understand. One president commented that information often changes day by day. In addition, interpretation and translation of complex data and guidelines are accomplished on a case by case basis, with no guarantee of consistency. The LSCs and their members are a very diverse group and the information they typically receive is often couched in language and presented in formats that are unfamiliar and inaccessible. At a January interview of LSC presidents, several mentioned that critical information should be offered to LSCs in more than one medium. For the most part, it appears that LSCs do not now have control over the flow of information coming to them nor over the quality and presentation of that information. Yet this information is critical to the tasks that have been outlined for them

Even the principals who are experienced in working with information networks within the Chicago Public Schools find that they are impeded in many of their attempts both to get correct information as well as to identify proper procedures. One principal noted that he is not even receiving the same information as his LSC chair. That situation, he notes, prevents him from being able to respond constructively to LSC requests. Supporting the capacity of principals to provide accurate information to LSCs would represent an important resource and support to the councils.

2. Identifying and receiving comprehensive training that empowers LSCs to perform the tasks mandated to them by PA 45-1418 and by their communities

Training is the most often mentioned need among the LSC presidents -- both in the surveys and at the January meeting. Before the LSC elections, potential LSC members had been trained under a systematic training program, with pre-packaged topics and funded delivery systems. Training packages were designed and disseminated with consistent messages that were heavily tied to the legislation and to the election procedures. In short, training was a planned activity tied very closely to a specific set of outcomes. Since the LSC elections, training is being offered in more of a marketplace arena. There are many potential

providers, who are offering varying messages with numerous choices. In this context, there is less funding and the newly elected LSCs are operating as inexperienced consumers.

As a result, community organizations with few resources (especially staff and access to information) are not well positioned to provide training to their neighborhood LSCs. This means that no consistent, dependable structure exists, across all communities, to "inform, instruct, and support" LSCs. These are roles that community organizations are historically accustomed to playing but now say they cannot because of inadequate funds and staff. Moreover, they are competing with other providers of these services who have greater resources, such as colleges and universities, and other private agencies.

Learning how. Both in written surveys and in oral interviews, LSC presidents expressed strong preferences for training that is less focused on information gathering and more centered on teaching them how to accomplish specific tasks outlined in the legislation. That is, they want fewer facts and more training that helps them develop the skills needed to do the work. A few respondents evaluated their present training as "boring" because it was heavily concerned with ideas and theories and not with process. When asked what they liked most about their training, some noted the question and answer sessions, and trainers who adjusted their presentations to the needs of the group. Over and over, at the January meeting, LSC presidents stressed their desire to learn how to be policymakers and how to carry out their roles in relationship to the principal.

Identifying the best training. Many of the LSCs feel a sense of urgency about what they are being asked to do. This sense of urgency makes them anxious about receiving good training. As a result, there appears to be a great deal of concern about identifying the best training. For those with connections to either Designs for Change, Chicago Panel, CANAL, or university programs, this seems less of a problem. But for those without such connections, finding out what training is available and its quality has become an acute need.

Meeting diverse needs. The diverse characteristics of the LSC audience present another set of challenges for training. First, all LSC members are not consistently available at the same time for comprehensive training to take place. Of the 16 LSCs that answered this study's survey, more than 70% are meeting only once or, at most, twice a month. Many mentioned that it has taken some time to settle on a designated number of meetings per month and to set a time. Obviously, training will soon have to be fit into this schedule, because LSCs must make some important decisions over the next few months. They will want and need training to support their abilities to make these decisions. Second, space must be arranged for training. Schools are

available only on a limited basis after school and many LSC members work during the day. Time and space, therefore, are two important considerations as LSCs try to plan for training. Third, training must be offered in a number of different ways to reach LSC members who have varying skills and experiences. One approach will not be effective for all people, nor will all people have the same level of need and support.

3. Being able to communicate and network with other LSCs as well as with constituencies in their communities

When 20 LSC presidents were brought together in January, one of the most strongly articulated needs was for greater communication and networking among them. Except for strong ties to their principals and to their fellow LSC members, most seemed to feel very isolated and insulated from the flow of school reform. They complained that they have very little knowledge of what other LSCs are doing and how they are solving similar problems.

Moreover, most do not seem to have thought about how they will disseminate information beyond themselves to their broader constituencies, that is, the parents and community residents who elected them. Indeed, increasing the accountability of LSCs is an area that has not been well explored with the passing of the legislation or since.

In addition, LSCs do not have mechanisms for linking to a broad range of individuals and groups that might have resources for assisting them with information or training. For example, they have no way to find out about model programs in special areas, nor can they access and evaluate the best in areas that they may know least about, such as curriculum. In fact, a school on one side of the city would probably find it difficult to identify an exemplary program on another side of the city. Clearly, the LSCs need a wider support system than they presently have, a support system that includes the Central Office, Chicago education professionals, colleges and universities, national research centers and laboratories, and others.

Implications for Telecommunications

It is clear that telecommunications cannot solve all of the problems and needs related to LSC support and parent/community outreach. Yet, this resource can be useful in supporting the reform legislation. School reform has created new priorities for parents and citizens that can be served through community organizations and the Local School Councils. For both of these groups, telecommunications allows for the offering of more choices and options; it provides for greater equity in the

dissemination of information and strategies; and it offers users greater capacity to use resources and to gain control over how they use those resources.

However, users must be trained in what telecommunications has to offer and how to use the related technological hardware and software. In an already vast and disorganized marketplace of information providers and trainers, telecommunications may at first seem to glut the market even more. Users, therefore, must be well positioned to evaluate what the technology is offering them.

Consequently, this study is recommending that the Chicago Public Schools look very carefully at concrete ways to use telecommunication technologies to support Local School Councils, groups that are new to the business of schooling. Like any new business, these councils need access to information, training and support services to perform their designated tasks, and they need distribution systems to communicate with their constituencies. Electronic avenues are an efficient, consistent, and equitable resource for offering support to more than 540 geographically dispersed and dissimilar councils and for linking these councils to community resources. Moreover, telecommunications can be configured in ways that take advantage of the assets of a large district, while maintaining the autonomy of local schools.

Local School Council Recommendations

One of the more exciting prospects of this study is identifying the vast number of possibilities that telecommunications offers to the Chicago school community. This report therefore recommends that the following types of telecommunications-based activities be explored:

Develop and support the capability of principals to use electronic avenues (computer and telephone) to access Board of Education information and data for the LSC. This activity will further enhance the level of information support that LSCs are receiving to perform the tasks mandated by the school reform legislation. One possibility might be the establishment of a fully computerized LSC Information Center (perhaps one in each district) that is staffed from 6:30 am to noon and from 4:00 pm to 8:00 pm. Such a center would be hooked into the Board's mainframe computer as well as other databases that would allow school staff and LSC members to gain immediate access to information.

Use pretaped videos and cable television broadcasts to show examples of how LSCs are discharging particular responsibilities. These shows would model appropriate decision-making processes and

procedures. Videos could also be used to provide training in areas that have consistent content, such as how to read a lump sum budget; how to conduct a needs assessment, and how to design a school improvement plan. Pre-packaged videos could also be dubbed in other languages so that they can be used with non-English speaking or LEP communities.

Organize and catalogue sources of training offered by community organizations and colleges and universities for both LSCs and school professionals. The cataloguing process would allow potential users to call for references on the listed resources.

Extend the use of the present EIES system to encourage two-way interactive communications between and among schools and LSCs. As part of this expanded use, users will need assistance and training, particularly in the strategic use of telecommunication resources as a tool of restructuring. In particular, LSCs and local schools will need assistance with using these systems for local community outreach.

These recommendations represent the minimum set of steps necessary to adequately address needs and problems related to the support of LSCs and to increased parent and community outreach.

STAFF DEVELOPMENT IN THE CHICAGO PUBLIC SCHOOLS

The Chicago Public Schools are in a state of flux in the area of staff development. While a primary goal of the reform is to create a system that allows for grass-roots control of the schools, the actual implementation of this process has challenged administrators, teachers, and school council members alike, and this year has been a period of transition.

One sees evidence of this transition everywhere. Last year, for example, the Bureau of Staff Development published its regular course catalogues, but this fall it was unclear whether the Bureau would continue to play that role. Early last fall the administrative staff at Pershing Road was reduced by several hundred people. Many of those remaining find themselves working in a new department with a drastically reduced staff. All are trying to establish and articulate their post-reform responsibilities.

The law assigned individual schools a number of major tasks to tackle within a brief period of time: electing and training members for the new school councils, writing and implementing a school improvement plan, and developing teacher and principal training activities that are tied to these plans. This transition provides Chicago with a unique opportunity. While local school faculties and councils work to change the locus of control for staff development, they can also consider ways to maximize the effectiveness of staff development programs.

In the past, professional development models in school systems throughout the country typically employed a central cadre of trainers, who imparted their knowledge to teachers, administrators, and others in much the same way that teachers have traditionally imparted knowledge to students. Moreover, professional development was largely limited to one-shot sessions, the subjects of which were selected by others and provided with little opportunity for immediate applications, practice with feedback and coaching, or opportunity for subsequent research or work with the trainer. In the context of reform, Chicago schools can now ask: What are the characteristics of the best staff development? There is no one answer to this question, but there is increasing consensus that effective staff development programs have many of the same characteristics found in effective instructional programs for students:

- They allow and encourage the learner to link new information with prior knowledge.
- They maximize student control of the learning process.

- They are collaborative in nature. This means that they are designed, implemented, and assessed with collaboration among the designers, trainers, and participants. That is, the learning process is collaborative, with teachers and administrators engaged in peer coaching and assessment of learning.
- They are sustained and iterative.
- They are driven by the best of educational research and practice.

In interviews conducted during this study, administrators and teachers characterized staff development as it has been in the past, voiced their present concerns, and identified future needs to make the reform work. These individuals are attempting to comply with the intent of the law, but the process is still in its infancy.

Central Office staff notified principals last fall that they would be receiving staff development monies, but when NCREL began its interviews in October the building administrators did not yet know when or how much they would receive. The funds did arrive during the course of the study, but principals could not initially articulate the formula that had been used for distribution. Obviously \$650,000 is less substantial when broken into 604 pieces and principals and councils are searching for effective uses for their share at the same time as they are learning how to budget and what their training priorities are.

Overview of Findings

- o PA 45-1418 transfers primary responsibility for staff development from the central office to the local school. This section of the study surveys the implications of this change. Central administrators, building principals, teachers, and other stakeholders were interviewed to learn how the system currently functions. Additionally, principals of 20 schools revealed their concerns and described their needs as they take charge of inservice training. Their most basic requirement is current, concise, pragmatic information to facilitate the design of programs that are responsive to their school improvement plan.
- o This study found that there also are longstanding obstacles to effective staff development. The relevance and scheduling of training and sustained support for professional education both are key issues.

Inservice topics frequently are not responsive to the educational needs and realities of teachers and administrators, and when professionals do participate in pertinent training, there is rarely school and classroom-level assistance to implement these effective practices. Furthermore, it is exceedingly difficult to find adequate time for teachers to participate in the initial training as well as in follow-up activities.

Common Patterns of Staff Development across the System

Currently staff development activities are initiated by the Central Office, individual schools, and Project CANAL. Because all programs are regulated by Board, State, and Union policies, there is considerable overlap both in their structure and the constraints that guide their operation. The following section describes common characteristics across the three models

Requirements and Restrictions

Board policy states that novice teachers and those new to the system may be required to participate in professional education activities without compensation (a maximum of 30 course hours), although there is no articulated focus for these hours. The Negotiated Agreement between the Board and the Chicago Teachers Union stipulates that all other teachers are not required to participate in activities that occur after the student day unless compensated at their regular salary rate; compulsory activities requiring this regular salary are the exception. Principals can require elementary teachers to attend meetings or training sessions between 8:30 and 9:00 two mornings per week but the other three mornings are left for individual preparation.

Compensation and Fees

When teachers voluntarily attend inservice activities they receive Lane 3 promotional credit, \$8 per hour, their regular salary rate, or no compensation.

A master's degree is necessary before teachers are eligible for Lane 3 credits. After they complete 36 additional hours of study they receive a salary increase of approximately 4-8 percent depending on their length of service in Chicago. One must participate in a minimum of 15 classroom hours and complete outside assignments for each semester hour of credit; you cannot receive any additional compensation. These classes have a participation fee of at least \$5 plus the cost of texts and other materials with many courses falling in the \$25-30 range.

Teachers surveyed about participation in Lane 3 courses fell into two main categories. Half of the teachers had accumulated less than ten credit hours with 38 percent of this group listing no hours at all. (However, the survey did not discriminate between those who are ineligible to receive the credit and those who are uninterested.) In a second group were 31 percent of the teachers who had already accumulated all 36 hours required.

While many courses offer Lane 3 promotional credit, teachers receive an hourly stipend for participating in other activities. CPS pays teachers \$8 per hour for voluntary participation in extended day training, and schools that have corporate, foundation, or CANAL monies usually compensate teachers at a rate close or equal to their regular salary.

There are also a number of professional development activities sponsored by instructional bureaus and individual schools which offer neither credit nor monetary compensation but have been successful in attracting participants. One of the bureau directors reported that there is a waiting list for most of the weekend conferences that she offers. Another remarked that more than 200 teachers had attended an after-school round-table session that month in order to share teaching strategies.

Trainers

Outside consultants, curriculum specialists and coordinators, and teachers provide training. Teacher trainers must have a master's degree and are compensated at the rate of \$20 per course hour. Since they have a great deal of credibility with their colleagues they are used frequently either as the sole presenter or in conjunction with an outside consultant. Publishing companies regularly provide consultants to do instructional presentations, and industries often provide training for Vocational Education teachers, e.g. how to fix a new type of motor. University consultants are another source. The Department of Human Services provides some of the training for Head Start teachers.

Scheduling

Finding time for group activities presents one of the greatest challenges to staff development efforts. This problem existed prior to the reform and has not been addressed by the law. Elementary principals are allotted two, 30-minute periods per week to meet with their staff for organizational and staff development purposes. If meetings do not start punctually and staff members must leave early to attend to arriving students the length of the session is further reduced.

Most principals feel that this arrangement does not allow sufficient time for any real exchange of ideas and often the time is merely spent making announcements and addressing logistical concerns. High school principals and department chairs do not even have the guarantee of this minimal time. They generally arrange to meet with groups by shortening the student day; schools do this on a weekly, monthly, or occasional basis. Both elementary and secondary faculties are allocated several half-day training sessions but this year all but one has been used for report card or school council activities.

Programs do take place after school, on weekends, and during the summer, but teachers are not compelled to attend and many principals report that the extended day salary rate is not sufficient to motivate attendance.

It is also difficult for individuals to make plans to participate in school day professional activities. Because substitutes are generally unavailable, attendance at weekday conferences or classroom visitations is almost impossible.

Central Office

Bureau of Staff Development and Instructional Bureaus

Goals. Bureau directors have attempted to design activities that benefit and appeal to teachers from throughout the system. In trying to meet the needs of such a diverse population, it appears that there has been no specific goal, other than the general one of improving instructional practices. Topics for these courses are determined in several ways. The Director of the Bureau of Staff Development follows national trends and educational research, reviews Board and state priorities and mandates, and uses teacher suggestions gleaned from evaluation forms from earlier courses. Occasionally a principal will contact the Director and request a specific type of training.

Program topics for training in other bureaus are determined by conducting needs assessments, seeking teacher feedback, and following state and local mandates. The federal government mandates specific training topics for programs like Head Start. Principals and curriculum specialists at individual schools also make requests for training, primarily for the preschool slot at elementary buildings. Future requests will likely come from principals and LSCs as they seek help in implementing their building improvement plans.

Target audience. In its effort to respond to the needs of more than 24,000 teachers, the Bureau of Staff Development, arranges a

wide range of courses which meet after school and during the summer. Classes are located at the Administration and Service Center, District offices, elementary and high schools, local colleges and universities, and cultural centers. A number of training vehicles are used by the individual instructional bureaus in their attempt to reach all teachers responsible for specific content areas. Credit courses must be listed through the Bureau of Staff Development, and other non-credit courses are held after school, during the summer, and on weekends. Additionally, the Bureaus of Language Arts and Mathematics provide monthly release time sessions for their resource teachers, who do not require substitutes.

When institute days were citywide the instructional bureaus were responsible for the programs. This provided an opportunity to furnish all Chicago teachers with uniform training on curricular issues. However, when the institutes were moved to the district level the bureaus' roles became less direct. Individual districts often called their offices to request training programs for these sessions, but the bureaus were no longer guaranteed access and they no longer controlled the content.

Various methods are used to communicate with this large audience. Typically, a course catalogue is published by the Bureau of Staff Development and sent to all schools three times per year. The Instructional Bureaus send out newsletters, bulletins, and calendars to notify school faculties of their training activities. They also contact principals and selected teachers through letters and personal contact.

Present strategies and activities. Those on all levels readily acknowledge that there has been limited support following inservice presentations. For the most part teachers attend a single session workshop or series of classes and have only their handouts to guide them when they attempt to implement the program in their own classroom. Sustained personal support is the exception and that is usually provided only when activities have been funded by an external sponsor. There is generally not staff, funding, or release time available for such activities in conjunction with regular CPS programs.

One of the few internal support systems has been developed with the use of federal and state Chapter I funds. Ninety-seven elementary schools have Intensive Reading Improvement Program (IRIP) teachers assigned to them and an additional 137 have Reading Improvement (RIP) teachers. There are 30 Elementary level Intensive Math Improvement Program (IMIP) teachers. IRIP, RIP, and IMIP teachers as well as other building resource teachers play a role in staff development. This, however, is usually just one of their many responsibilities. Other duties may include: ordering and distributing instructional materials, organizing student grouping, providing direct instruction,

writing proposals, coordinating IGAP goals, and/or arranging after-school reading programs. Many of the resource teachers and principals interviewed voiced regret that the resource teachers are unable to spend more time in classrooms both to observe and provide feedback and to model effective practices.

At the secondary level department chairs are the primary training resource, but they, too, have a limited amount of time for it. In addition to teaching four classes, they are also responsible for ordering instructional materials and serving as a liaison between the administration and the teachers in their department.

Educational Service Center

Goals. Educational Service Center Six is one of 18 centers created by the Educational Reform Act of 1985 to develop and deliver services designed to meet the needs of the schools in its service area. Educational Service Center Six provides service to Chicago Public Schools, District 299, exclusively.

All Centers are required to offer a common core of services:

1. Develop, schedule, and provide inservice training for administrators.
2. Establish programs and provide training designed to achieve computer literacy and high-tech competency.
3. Provide technical assistance to local schools to comply with provisions pertaining to the State Goals for Learning, coordinate citywide workshops generated by Illinois State Board of Education staff, and assist in the development of local school improvement plans.
4. Provide training and staff development workshops in gifted education, mathematics, science, reading, foreign language, computer training and fine arts.
5. Participate in the development and operation of a statewide network designed to facilitate data reporting requirements from local programs and services to the State Board of Education.
6. Serve as a citywide clearinghouse for educational information and research.
7. Serve as the primary regional delivery system for federal and state supported programs in education.

Target audience. The ESC has a broad spectrum of clients. Included in its population are teachers, principals, assistant

principals, administrators, Board members, and council members.

Present strategies/activities. A program of particular interest to this study is the information clearinghouse. Working with the Bureau of Libraries, the Center can search more than 300 national databases. An average of 150 requests are sent to the ESC each month. Teachers, principals, Central office administrators, Local School Council chairs, and Board members utilize the service. ESC #6 sends out a monthly newsletter that includes a description of the service and they mail all librarians and principals a research request form three times per year. The ESC can respond to most requests within a day.

Another important function of the ESC is its training for administrators. There are four instructional strands: required, designated, selective, and clinical. The required strand provides mandated training for principals and assistant principals, while the other three types are voluntary. Recently, these strands have focused on issues related to educational reform. Principals and LSC members are interested in upgrading their skills for working with the Councils and implementing other aspects of the reform and have been anxious to attend the courses which are offered throughout the year.

The ESC funds staff development for teachers both directly and indirectly. The State sends funds to the Center, which serves a monitoring role, and the Center funnels them to the Bureau of Staff Development and individual instructional bureaus. There are limited resources available for individual schools with requests to fund specific programs.

School-Initiated Programs

Goals. Until recently many schools formulated training efforts in response to a variety of needs rather than as part of a cohesive plan. The building training focus has been determined in a number of ways including formal or informal teacher needs assessments, principal observations, and Board goals and directives. Now the Reform Law dictates the focus of much of the training efforts; the Law and individual school improvement plans will be used to guide future training. Training topics used at individual schools duplicate some of those presented at Central Office and Project CANAL during the past year. They are outlined in Exhibit 5-1.

Exhibit 5-1.

Staff development themes for the past year cited by teachers and principals in the 20 profile schools

Pedagogy

Effective Teaching Techniques
Assertive Discipline
Accelerated Learning
Integrated Learning
Cooperative Learning
Paideia Approach
Assessment

Curriculum

Reading Strategies
Hands-on Science
Math Make-n-Take Workshops
The Writing Process
Whole Language
Civic Education
Chicago History
Black Genealogy
Special Education Strategies and Issues

Social Issues

Pregnancy Prevention Programs
AIDs Awareness
Gang Awareness
Drug Abuse Prevention/Awareness

Reform Issues

Writing School Improvement Plans
The Implications of the Reform Law
Team Building
Grant Writing Skills
Problem-Solving Skills

Miscellaneous

Computer Literacy
Teacher Stress/Burnout
Spanish for Teachers

Target audience. While much of the elementary-level training involves the entire faculty, some inservice is directed at specific segments of the staff, e.g., grade level groups or special educators. At the secondary level most training is aimed at the members of specific departments.

Present strategies. Schools take a variety of approaches to staff development. Whereas many faculties concentrate on two or three major concerns during the year, others examine numerous topics. If the staff limits their meetings to those provided contractually, trainers can provide awareness but not in-depth training. As one elementary principal pointed out, there is no time to do real staff development. Faculties in these schools often end up using a large portion of their limited meeting time just discussing things happening in the building and making announcements.

Although training in some elementary buildings is limited to the two, 30-minute periods per week other faculties agree to meet additional mornings before school, after school, and on weekends. Some teaching staffs arrive at 8:00 AM on meeting days so that there is a full hour before students arrive. One principal said that some weeks his faculty meets three or four mornings and other weeks they don't meet at all. Since he convenes meetings only when there is a legitimate need, his teachers are very accommodating. Some high school principals arrange common preparation periods for teachers in the same department to facilitate collaboration. Some departmental groups meet almost daily and others rarely work together.

Prior to the reorganization and reduction of staff at the district offices, district trainers frequently presented inservice programs and support to individual buildings and the building specialist could also provide follow-up support. Several principals as well as the Director of Staff Development emphasized the important role these people had played. Now that these positions have been eliminated, the building specialist is frequently responsible for providing both the initial training and the follow-up support along with all of their other duties.

A number of schools have formed partnerships with corporations and foundations that provide financial support for meetings that occur outside of the school day, but in some buildings without such support a large percent of the teachers participate voluntarily. An elementary principal mentioned that 65 of his 71 teachers attended a recent Saturday session without receiving any compensation.

CANAL: An alternative model of staff development

Goals. The CPS Department of Equal Educational Opportunity Programs (EEOP) developed Project CANAL in response to the Settlement Agreement between the Federal Government and the Chicago Board of Education. Eighty three million dollars will be spent over the five-year life of the project to relieve the effects of segregation in racially identifiable Black and Hispanic schools.

The EEOP staff designed a training program to lead and support school-based improvement plans in order to raise student achievement. Although many of the goals and activities of CANAL parallel PA 85-1418, this project was approved in April, 1988 eight months prior to the passage of the school reform bill.

Target audience. Each of the participating schools selected a core planning team composed of teachers, the principal, ancillary staff, parents, community representatives, and high school students, where feasible. The team receives training at the Project Center at least one day a month, and the entire faculty/staff, including aides, clerks, lunchroom personnel, and the school engineer participate in training activities at least one day per year. CANAL staff and consultants provide inservice on school-based management, communication strategies, and instructional and behavioral management strategies.

Present strategies/activities. A cadre of substitute teachers travels from school to school to provide release time for teachers and ensure minimal disruption to the instructional program. The cadre is supervised by a certified principal and includes teachers, aides, clerks, and an engineer. They are aware of and committed to the goals of CANAL and are familiar with the schools and classes they serve.

CANAL Coordinators help to facilitate the project in the individual sites. They serve as a liaison between the project office and the school staffs. The coordinators meet with the core planning teams to provide resources and technical assistance.

In addition to the sessions at CANAL headquarters there are regular whole-faculty training activities that take place at the individual sites. CANAL funds allow for the provision of regular salaries to participating teachers as opposed to the \$8/hour rate generally used. Some CANAL schools have used project funds to hold training sessions prior to the start of the school year.

Prospects for the Future

Now that responsibility for teacher training is moving to local school staffs and communities, staff development efforts must be reformulated. It is up to each faculty to directly tie its training activities to its school improvement plan and any Central Office support must have this same objective. No longer is it acceptable to offer a myriad of inservice programs that have no particular end goal.

Problems and Needs

In an effort to get a clear picture of staff development from the perspective of teachers and principals, NCREL spoke to principals and a sample of the teachers in 20 schools and interviewed officers of the Chicago Teachers Union and Chicago Principals Association.

From the perspective of teachers. Although a number of teachers mentioned the value of workshops that are intellectually challenging, though not necessarily practical, more typical is the teacher who seeks information that can have an immediate impact on his/her students. Teachers want to learn new concepts and teaching strategies as well as to be reminded of techniques they may have forgotten or be shown a new way to apply previously learned techniques.

When teachers were asked what made a professional education activity valuable for them a large percent responded with comments such as, "something practical" or "something I can relate to my classes." They also approach staff development as consumers and want to make sure that what they are learning "can show results," "can be implemented with meager resources," and is not just "directed at the ideal situation."

Teachers have a clear vision of what makes for a good inservice program. Presenters should be both enthusiastic and sincere. It is important for them to have a good command of the content and to present it in a well-organized fashion. Participants also appreciate the use of demonstration films so that they can see how a concept will be applied in the classroom.

Most teachers indicated a preference for training sessions where they were active participants. Those interviewed mentioned the value of role play with immediate feedback, small group discussions that allow for sharing of ideas and experiences, and question-and-answer sessions.

People like to leave an inservice session with something in their hands. They want to concentrate on the speaker during the session and refer to handouts, bibliographies, and source lists afterwards.

As part of the study NCREL surveyed all teachers in the 20 schools to determine what the best time was for training activities. Responses were received from 493 teachers from 16 of the 20 schools. NCREL found that current scheduling practices are at odds with teacher preferences. Those completing the survey indicated that they would most interested in participating in staff development activities that take place:

Exhibit 5-2.
Teacher preferences for inservice scheduling.

Time	Percent*
Release Time	45%
Summer	36%
After School	31%
Saturdays	17%
Before School	14%
Evenings	13%

* Responses sum to over 100% because of multiple answers from individuals. 493 teachers completed the survey.

Professionals realize that workshop attendance alone will not guarantee the successful implementation of new instructional behaviors in their classroom. They are very sensitive to the uniqueness of the Chicago system in general and their individual school populations in particular. The principal of a predominately Hispanic school on the west side emphasized that issues on his side of the city are different from those on the other side of the city. Therefore teachers need assistance in order to implement new approaches with their specific group of students and in the unique environment of their school. One teacher, committed to professional growth, remarked that without support afterwards "it's easy to just give up". Valued support activities include having conversations with other

teachers to share experiences, getting the chance to ask follow-up questions of the presenter in the weeks following an inservice, observing other teachers, peer coaching, and newsletters directed at those working to implement a specific approach.

From the perspective of the Chicago Teachers Union. While questioning individual teachers provided insight into their particular problems and needs, an interview with an officer of the Chicago Teachers Union (CTU) furnished a global perspective and a synthesis of the input the Union receives from its members. The CTU is working on a proposal to restructure staff development based on teacher input and current research on effective staff development. It will focus on collegial skill building, shared decision making and a link with parents. In the opinion of the CTU executive, all staff development programs should be voluntary. If programs are worthwhile people will want to participate. He feels that in the past teachers have not been involved enough in the planning. Because of that, many teachers take a very passive approach to staff development. They may attend sessions to collect the stipend but go expecting and gaining little from them. Participants will demand more of staff development if they are voluntary participants and quality programs will only be designed when they depend on volunteers for their success.

From the perspective of principals. Principals voiced concerns about their ability to assume responsibility for staff development activities. They repeatedly mentioned a lack of immediate access to Central Office information about resources for staff development. This problem existed prior to the Reform Act, but is particularly significant in light of the law's stipulations that local schools be responsible for staff training needed to carry out the actions in the School Improvement Plan. Additionally, in an attempt to reduce bureaucracy, curriculum staff has been eliminated at the district level, a source that many principals had come to depend on. Complicating matters further is the fact that recent training information has frequently been sent to the LSC chairs but not the building principal.

Principals need to know what training programs are available for specific purposes, who provides training, what conferences will be taking place, and what printed and video matter is available. Since they will be looking for funds to supplement those provided by the central office, they also need information on potential corporate sponsors and grants.

From the perspective of the Chicago Principals Association. As with teachers, a conversation with the president of the Principals Association provided a broad view of principals' perspective on staff development. The Association did not focus on staff development until recently. However as principals become instrumental in managing staff development programs and resources it is becoming a higher priority for the group.

The CPA has procured a grant to fund seminars for its members on working with Local School Councils and they are writing other proposals to provide for training on team building and conflict management. In the opinion of an Association officer, the Board needs to provide principals with more training for their new roles.

Staff Development Needs

This study revealed several consistent problems in the current training system. They are in the areas of:

1. Sustained Support
2. Time
3. Relevance of Training
4. Communication of Information

Although the need for accurate information has escalated as a result of the reform legislation, the majority of these concerns are long standing.

Provide sustained support to teachers. Teachers typically attend isolated inservice sessions but receive no assistance after they leave. Because there is no help for those trying to implement strategies with their specific population of students even an exceptional presentation may have no impact on current practice.

Find ways to provide training and support at convenient times. A lack of quality substitutes makes it almost impossible to use release time for professional development activities yet the time presently allocated to training is inadequate. Principals frequently have to rely on volunteer participation but the minimal compensation and the lack of relevance of some programs discourage such attendance.

Design training that is relevant to local concerns. Systemwide courses have attempted to meet the professional needs of teachers and administrators from schools across the city. The problems and needs in these schools vary greatly and can rarely be addressed through a common core of training, especially if it is not personalized for specific student populations. Yet, promotional credit, which has been used to encourage participation, encourages indiscriminate attendance by those in need of course

hours. Some of those attending Lane 3 courses may be more interested in acquiring credit than knowledge. Thus, they have the potential for being a passive and non-discriminating group. In contrast, those who have met the 36-hour requirement no longer have any extrinsic incentive to participate in a major portion of the training activities being offered. The topic for central-level programs must be compelling, and the prestige of this training must be high or they will have no reason to take part. Those who have already accumulated the 36 hours tend to be more experienced teachers. If that group no longer "needs" to participate in training activities, other motivation must be found to encourage them to upgrade their knowledge and skills. The greatest inducement to active participation in central or local school district activities, therefore, is to involve teachers and administrators in the planning of programs that focus on problems and needs in their daily professional life.

Get training information to principals and LSCs. Problems aggravated by the reform include a lack of information about staff development resources at the local level and the deluge of disorganized, unevaluated training data flowing in to principals and school councils.

Implications for Telecommunications

Administrators, principals, and teachers interviewed as part of the study have had limited experience with telecommunications. Although there are pockets of innovation taking place at all levels, e.g., training modules designed by an Instructional Bureau and disseminated through the computer bulletin board system, school faculty participation in teleconferences, for most the use of technology means an occasional videotaped training program. It is difficult for many people to even imagine the capacity for problem solving that telecommunication holds.

Although telecommunications cannot address all staff development needs, it does have the potential to make a significant impact. If individual schools are to become responsible for staff development they must have ready access to essential information that will allow them to design programs relevant to local concerns. When school staffs recognize the impact new instructional strategies can have with their own students they will be motivated to actively participate in the training activities. The strength of telecommunications is in its ability to deliver uniform information instantly to people throughout a network, e.g., Chicago Public Schools.

Yet meaningful teacher change is unlikely to occur unless sustained support is provided. Because of problems with scheduling and release time, little support has existed. Again, telecommunications can be one avenue to pursue in solving this problem. With this in mind, the recommendations which follow address crucial problems that are amenable to telecommunications solutions.

Staff Development Recommendations

Resources for principals, teachers, and LSCs. Principals, teachers, and council members responsible for staff development need immediate access to a wide range of information. In the course of the interviews with principals, the following information needs were conveyed:

- A catalogue of instructional materials and available equipment in different curricular areas
- A catalogue of staff development resources in different instructional areas to include available consultants, speakers, programs available on videotape or satellite transmission, professional organizations and community groups, conferences, books, journal articles, and referrals to other sources
- A catalogue of financial resources to include RFPs, funding sources, corporate sponsors, partnerships, etc

Currently principals and Local School Councils are receiving an overwhelming volume of mail and telephone calls from groups interested in providing these resources. At present there is no organized way of reviewing the information and principals are not even receiving all of the materials sent to LSC chairs. It is not conveyed in any common format and it is difficult to keep up with, let alone evaluate all of these vendors.

A more feasible approach would be to set up a database for this type of information. Schools would have a printed catalogue and online access to the material. Principals, teachers, and school council members would be trained to use the system so that they could all operate from a common information base. Higher education, community groups, and corporations would be informed of this database and encouraged to use it in place of the mailings and telephone calls that are currently swamping principals and council members. Schools would only have to call up information that was immediately relevant and could confidently ignore the rest. An interactive system could be developed so that a school could enter evaluations into the database, so that other schools would have some means of

selecting among the many options. It would also be possible for them to add new information that had not gone through the central source.

Sustained Support for New Teaching Practices. In a written survey 37 percent of teachers indicated an interest in observing another teacher when they were attempting to implement a new instructional behavior. They want to see what instructional techniques look like when used with urban students like their own in settings that approximate theirs. Although individual schools have developed unique improvement plans, there are frequently clusters of schools working to implement some of the same techniques, e.g., Assertive Discipline. It is conceivable then that a fourth grade teacher might be interested in viewing other teachers in his/her own school using Assertive Discipline as well as observing 4th grade teachers in several other Chicago schools.

The lack of qualified substitutes combined with the size of the school district make it almost impossible and highly impractical to release teachers to do observations. The cluster of schools working to implement a particular program is frequently not contiguous and therefore, even if a substitute were available, a teacher might be required to spend an inordinate amount of time travelling from one building to another in order to observe all of the desired classrooms.

A more pragmatic approach would be to videotape exemplary models and establish a videotape library in each school. Unlike the commonly used "canned" training programs, these tapes would be unrehearsed demonstration lessons prepared by and for actual Chicago teachers.

Tapes could be catalogued by topic, grade level, student population, etc. The teacher interested in assertive discipline can now have ready access to a variety of examples that meet his/her particular needs. The tapes can be viewed during preparation periods or at home. On the teacher survey 86 percent of teachers indicated that they had a VCR in their home and more than 80 percent of those interviewed reacted favorably when asked if they would be interested in watching inservice programming on their home TV. Typical comments were, "I'd like to be able to replay it," "it might be easier to watch at my own convenience," "it would be nice to take home and view at home in quiet," and "it would give me more time to react and evaluate."

This approach provides for the site-based control and focus on the school improvement plan mandated by PA 85-1418 while also providing one type of sustained support that was lacking prior to and following passage of the act. Individual schools would have control over the focus of their staff development activities, but would be able to take advantage of goals and interests they share with other Chicago schools.

An alternative to videotape libraries would be to air the tapes on a cable channel dedicated to staff development. On the survey of telecommunications almost half of the teachers indicated that they had service from a Chicago area cable company. Building A-V coordinators could tape them so that individual teachers could view them at a convenient time.

The impact of videotaped training would be even greater if two-way, rather than one-way communication was provided. Coaching can occur over the telephone, through video teleconferencing, or by utilizing the computer bulletin board or electronic mail. After viewing a demonstration tape, a teacher could direct questions and comments to the demonstration teacher, other viewers, and/or the presenter of the initial inservice. The teacher could also make video and audio tapes of his/her own instruction for self analysis and to share with the demonstration teacher/coach.

This system, like the resource database, allows school staffs to pursue their individual goals while sharing their instructional experiences with schools in any area of the city. Faculties face a great challenge in assuming the responsibility for their own training needs. It is important that they are not restricted by a lack of information and isolated from others pursuing common goals.

VI

PRESENT TELECOMMUNICATION RESOURCES IN THE CHICAGO PUBLIC SCHOOLS

This section of the report describes telecommunications resources in the Chicago Public Schools. Using data collected from a sample of 283 schools, from interviews conducted with key administrative staff in the bureaus of telecommunications and information processing, from reports previously published by these same bureaus, and from interviews and surveys with potential telecommunications professional and LSC users at the sample of 20 schools, this study explores how telecommunication systems might be used to provide professional education to CPS educators and administrators, as well as to support LSCs and other groups involved in the implementation of school reform.

While advice on how to improve the Chicago Public Schools is plentiful, timely and practical advice from credible sources that have taken the time to study and understand the system thoroughly is scarce. This study revealed that teachers and administrators want help from other successful educators who are also working with the problems of inner city schools. They also want professional education that addresses specific needs they see in their schools and classrooms. Parents and community members similarly want information that is relevant and of high quality, and they want answers to their queries that are sensible and timely.

Matching Technology and Needs

Given the size of CPS, the diversity of its schools, and the vast new pool of elected LSC officials, it will be difficult to match training and information providers with local schools and the professionals and LSC members there. It will be even harder to schedule and obtain this information and training within the constraints of the system. Some important new priorities are emerging. The system needs a way to communicate what local school needs are to providers of professional development and LSC training. The system also needs a system for cataloguing and accessing opportunities for training economically and conveniently. As traditional assumptions about central planning and support for local schools are being questioned, the entire school system needs to investigate how to use its present telecommunications resources to their fullest advantage and also how to identify and develop additional sources of support.

The report suggests that telecommunications can be used to fill the gap created by changing expectations and decentralized administration of the schools. Telecommunication systems can be used to provide local schools a dynamic index of resources and

providers. Educators can use telecommunications to locate and schedule courses for their schools. They can also use telecommunications to identify other schools with similar needs across the city. Telecommunications may make it easier for educators in one school to become providers of professional education to those in other schools.

Telecommunication systems can also be used to distribute professional education courses to educators in diverse sites in the city. Research shows that telecommunications provides a more economical means to distribute information between and among educators citywide. Telecommunications makes it more feasible to deliver needed services to dozens or even hundreds of schools in all areas of the city. Moreover, it has tremendous versatility and can deliver a message to only selected individuals or to all schools in CPS.

Local School Councils have many needs for information, assistance, and training. Just as professional education needs can be met through an appropriately designed and implemented telecommunication system, LSC needs can be effectively met through telecommunication systems. LSC members can receive instruction in how to fulfill their roles by live or taped video instruction. It is possible to establish telephone or computer networks to answer LSC members' questions about specific issues in their schools. Telecommunications can also help LSCs reach out to their community to inform them of school activities.

In this report, telecommunication systems are defined as any system using electronic technology to distribute information to several locations or to communicate among several locations. Telecommunication systems include one-way communication, such as broadcast radio, and multi-way communication, such as electronic bulletin boards. They may involve live, real-time interaction between individuals at two or more sites, or they may allow for interaction whenever it is convenient for the different parties to participate.

Overview of Findings

- o This study surveyed the telecommunications resources and equipment at the Chicago Public Schools using the Electronic Information Exchange System (EIES). Two hundred eighty-three schools responded electronically to this survey and the results are reviewed in the following section. The data is analyzed by the individual telecommunication technologies, specifically television, computers, and radio, telephones, and other resources.

- o NCREL found that Chicago schools commonly have access to broadcast, cable and videotaped television programming. These systems are being used almost exclusively for one-way transmission of information. The schools usually have only one VCR in a school, and one school in three has a video camera.
- o The survey also established that schools have general access to computers, which are primarily kept in small to medium-sized labs for student use. Usually, only one modem is available in a building.
- o The survey findings show that schools have several radios and telephones, but they are primarily located in the administrative office. Schools are likely to have an intercom, but one intercom in seven is not working. Most buildings have a coordinator for equipment.
- o Interviews and surveys with administrators, teachers, community organizations, and LSC presidents reveal wide divergence in opinions about and knowledge of the potential uses of telecommunications.

Television

In past years, Chicago Public Schools pioneered in the field of instructional television, beginning with closed circuit television at the Byrd School in 1961. At the height of its use, The Rand Corporation described this program as one of the most significant television projects located in an inner-city school. The Byrd Closed Circuit Television Cluster was made up of five neighboring schools linked together into one system. One school in the cluster, the Byrd, was designed as the studio school and equipped with a complete television control room and studio. Programs originated from the studio school. The other schools in a cluster were connected to the studio school by Illinois Bell Telephone cable.

In addition to the Byrd School setup, the Chicago Public Schools have 16 high schools with complete production facilities and personnel to provide a telecommunications service. The use of these facilities varies from school to school.

The Chicago Public Schools have access to all tapes in the Illinois ITV library free of charge. Teacher guidebooks are supplied by the state free of charge. They have access to all tapes from the above libraries through the State of Illinois free of charge. There are other sources of programming available from PTV stations and video production units. Local TV stations provide assistance in the form of print material and seminars.

Many of the schools in the system are connected to the cable television system and receive educational programming on Channel 21. The Bureau of Telecommunications and Broadcasting has prepared a weekly program schedule, listing the programs that will air each week. Currently, the Bureau is negotiating with a cable company for a dedicated channel and a direct hookup between CPS's production studios and the cable company.

Television and Related Hardware

Televisions are accessible to most teachers in CPS. Most of the schools (94%) indicate they have at least one television. Over half of the schools (57%) have from two to five sets in the buildings. An "average school" has three television sets. About two-thirds of these sets are color. Most of these sets are on mobile stands, and are therefore movable to individual classrooms.

VCRs are not as common as television sets in the schools. While most of the schools (86 percent) have at least one VCR, few of them have more than one. Usually recorders are kept on mobile stands, together with a TV set. The next most common location for the VCR/TV stand is the library/learning resource center. Almost all of these VCRs are VHS format recorders.

Video cameras are much less common than VCRs. About one-third of the schools have one or more video cameras. The majority of these cameras (92 percent) are VHS format.

Almost one-third of the schools (30 percent) reported having an internal video distribution system. A somewhat larger proportion of the schools (38 percent) report having a video library, making tapes available. Tapes are used for several purposes including the following:

student instruction	92 %
general education	90 %
faculty resource	78 %
enjoyment	66 %

Cable and Telecommunications Access

Most of the schools are wired for cable (82 percent), meaning that the cable has been brought physically to the building. However, only two-thirds of these cable systems are in working order. Most of the schools with non-working cable systems

reported they needed technical assistance to make the system

operational. The two most common locations for cable connections are (1) the library/learning resource center or (2) the auditorium or lunchroom.

One school indicated it had an out-dated, fixed satellite dish located at the school. One other school reported using a private satellite dish off-site in the last two years.

Video Staff Development

Nineteen principals were asked to suggest ways in which telecommunications could support staff development. Half of the administrators said that training courses could be offered by video. Two of the principals wanted to use recording equipment to give teachers feedback on their teaching style and techniques. Other suggestions included: targeting new teachers for special support activities; providing live interaction after as a follow up to training programs; and asking teachers to view videos in preparation for faculty meetings or short inservices. Principals also pointed out that telecommunications is valuable because training can be offered without travel, and that video training is an efficient use of trainer time and training expense.

Exhibit 6-1.

Principal Interviews--Suggested Uses of Telecommunications to Support Staff Development (N=19)

Comment	Percent Answering*
Video training sources, including broadcast, cable, and videotape	58%
Computer network between schools and to access database of information about funding, training materials and other resources	47%
Recording/playback of teacher performance	11%
Computer literacy training needed	11%
More equipment needed	11%

* Responses sum to over 100% because of multiple answers from some principals

Of the 19 principals interviewed, six were definitely interested

in participating in a teleconference professional development program. Another nine principals were uncertain regarding the proposed program. For them, the content of the presentations would be a deciding factor. Generally, the principals seemed to want content relevant to the daily activities of their teaching staffs. Two specifically said that the presentations would need to be participatory in nature to make the sessions more interesting and useful. Time is a concern for four of them, especially in regard to finding and funding substitute teachers so teachers can receive training during school hours.

Exhibit 6-2.

Principal and Teacher Interest in Teleconference Professional Development Program

Comment	Percent Answering*
Yes, my teachers and I would be interested in a teleconference program in my school.	32%
Maybe	47%
Depends on content	32%
No Response	21%
Should be participatory	11%
Depends on substitutes	21%

* Responses sum to over 100% because of multiple answers from some individuals.

Teachers' Home Access to Cable and VCRs

Schools were asked to report the number of teachers residing in Chicago who have cable television in their homes. The sample 280 schools noted that about half of the teachers have cable television. Most Chicago teachers have VCRs in their homes. Of the teachers responding to the written teacher survey, 85 percent have VCRs. This finding indicates that CPS could extend the cable-disseminated programming by using videotapes for teachers not served by cable.

Schools were also asked to estimate the number of teachers in their schools who are willing to watch informational or professional development television programming at home. The schools estimate that about three-fourths of their teachers are willing to watch some professional development programming at home.

The majority of the IRIP/IMIP teachers interviewed are positive about the possibility of watching training on their televisions at home. The majority say they would like tapes, with the opportunity to replay something and to watch at their own convenience. Another 20 percent say that either tape or live broadcast would be adequate. A minority say that they do not have the time, motivation, or structure to view the tapes on their own.

Computers

Two computer configurations exist in CPS that do or could serve professional education and community outreach needs: the Electronic Information Exchange System (EIES) and stand-alone personal computers in the schools.

The Electronic Information Exchange System makes many resources available to teachers in Chicago schools. The user sits down to a computer with a modem which is connected to a phone. The modem makes it possible for the local computer to connect with a large, centrally located UNISYS 6000/50 computer over the telephone. The user logs on by using a name and a password. From this point the user may request any item from of a large menu of options.

Users of EIES who are just beginning or trying something new may choose a tutorial on how the system works. They may also use the electronic mail or the bulletin board feature to communicate with other users of EIES. This allows for public discussion among many schools on topics of common interest.

Teachers may use the system to ask for one of several library files of resources. They may consult Grolier's Academic American Encyclopedia, examine any of the CPS Curriculum Guides, or check on the availability of titles in the Chicago Public Schools Technical Library.

Parents may use the system to check the Employment Network or the Crisis Line. They may ask for early childhood ideas through Bringing Up Baby. There are many service possibilities for parents through the Consumer Fight Back discussion center.

Students may also use the EIES for help in school. They can use the Homework Help Line, a creative writing center, or an ongoing storyboard. Electronic Penpals allows entire classrooms to communicate with other classrooms. There are also several science question-and-answer centers that specialize in critical thinking for students and adults.

Software provided by the Information Processing Services Department of the Chicago Public Schools can be used on stand-alone computers by the Local School Councils, principals, and others in implementing school reform in the areas of school financial information, etc.

Computer Resources

All Chicago schools surveyed have at least one computer. The typical (median) school has 19 computers. The middle half of the schools have between nine and 33 computers.

The types of computer most frequently used in the schools are Apple II's and their clones. Not only do more schools have Apples, but also each school has more of them. Eighty-five percent of the schools reported having at least one Apple computer, and the median school has 12 Apple computers.

The next most frequent type of computer in the schools is IBM/UNISYS or a compatible computer. About half of the schools reported having one or more IBM/UNISYS computers; the median school has only one of this type, compared to 12 Apples.

Thirteen percent of the schools have one or more Tandy/Radio Shack computers. Thirteen percent also reported having at least one Macintosh computer, with half (53 percent) of these schools having more than one.

Exhibit 6-3.

Percent of Schools With One or More Computers

Type of Computer	0%	20%	40%	60%	80%	100%
Apple IIs	.	.	.	.	85%	.
Macintosh	13%	.	.	.	.	.
IBM/UNISYS	.	.	53%	.	.	.
Tandy/Radio Shack	13%	.	.	.	.	.
Other	.	.	45%	.	.	.

Most of the computers are located in computer labs. The median number of computers in school labs is 13. The typical school has one computer in the administrative office, although 24 percent do not report having a computer in the office.

According to survey responses, modems are not as available as the computers in the schools. Respondents report that about half of the schools (49 percent) have computers with no modems. About 40 percent of the schools have one computer with a modem. About ten percent of the schools have more than one computer with a modem.

This low reporting of modems is particularly surprising since almost all of the surveys were responded to over a computer network using modems. Taken on its face, this answer cannot be accurate. It may be possible that respondents at some of the schools do not know what a modem is, and therefore could not answer the question accurately. It may also be that some respondents thought this question asked about other modems in the school since they obviously had one modem already. In either case, this illustrates the need to cross check information before making generalizations from any one data source.

Computers for Staff Development

Nineteen principals were asked to suggest ways in which telecommunications could support staff development. Almost one-half of the principals (47 percent) say that a computer network would allow staffs to access databases of information and to communicate with other schools. They are interested in information regarding funding, training materials, and other resources such as university libraries. Two principals interviewed want computer training in order to make better use of the equipment they already have.

Radio, Telephone, and Other

The following extract from the 1990 business plan for WBEZ radio describes the history and current status of the station. "Born in 1937 as a means of providing lessons for Chicago students kept at home by a polio epidemic, WBEZ today is one of the most successful stations in America's public radio system. Serving the nation's third largest market, WBEZ is the number one most listened-to public station in the United States.

"Licensed to the Chicago Public Schools, WBEZ is a member of the National Public Radio Network and an affiliate of the American Public Radio Network... It is one of 17 stations in the country with the technical resources to both send and receive satellite-distributed programming.

"WBEZ's mission is to educate, inform and entertain in order to provide for the cultural interests of the community, especially diverse underserved listeners seeking to know more about the world... WBEZ plans on decreasing its [present 20 percent of budget] dependence on institutional funding by increasing revenue from other sources."

Radios

The typical school has a median of four radios. The middle half of schools report having two to six radios. Only 9 percent of the schools do not have a radio. The administrative office was the most common location for a radio in the schools. About half of the schools report one or more radios in both a classroom and in the library/resource room.

Telephones

Telephones are most commonly found in administrative offices, not in libraries or classrooms. The typical school reports having a median of eight telephones. The middle half of schools have 4 to 11 telephones. Push button phones outnumber rotary phones more than two to one in the schools.

Intercoms

When asked if the school had an operating intercom, 86 percent answer "yes." However, this means that one school in seven does not have a working intercom.

Equipment Coordinators

The schools were asked if there were a person to coordinate and maintain equipment. Seven out of ten schools answer "yes." The remainder answer "no."

Community Groups and Telecommunications

One-third of those surveyed from community groups suggested using videotape for distributing LSC training. Topics for training included such issues as budgeting, problem solving, and how to run effective meetings. Exhibit 6-4 lists the uses of telecommunications given by community group members.

Exhibit 6-4.

How Telecommunications Might Help Community Groups (N=24)

Comment	Percent Answering*
Computer networking of LSCs, community groups, CPS Board and staff to coordinate activities, share information and access databases and reference information	46%
TV or radio broadcast, cable TV, as outreach to parents and constituents to inform them of school, LSC, or community group actions	42%
Videotape training for LSCs (also included general use of media for LSC training)	33%
Other telecommunications use (FAX, telephone conferences)	8%
Non-telecommunications (xerographic copier, sound trucks)	8%
Do <u>NOT</u> use passive TV viewing for training	4%

* Responses sum to over 100% because of multiple answers from some individuals.

Community groups typically have limited telecommunications resources. All of them have access to telephones. Just over half have personal computers which are primarily used for word processing. About one-fourth of them have pre-recorded video training materials or VCR/monitor playback units. Exhibit 4-5 lists the telecommunications facilities, equipment, and services identified by community groups that were surveyed.

Exhibit 6-5.
Community Group Telecommunications Facilities (N=24)

Comment	Percent Answering*
Telephone	100%
PC computer (word processing mostly)	54%
Video recording of training (recorded, being recorded for them, video recording equipment)	25%
TV monitors and VCRs for playback	13%
Some TV or radio access for messages or programs	13%
Computer modem or computer	4%
Telephone answering machine	4%
Conference telephone	4%
None, or almost none, excluding telephone	38%

* Responses sum over 100% because of multiple answers from some individuals.

Community groups feel that three major telecommunication systems would help them better serve school needs: computer networks, broadcast mass media, and videotape. Nearly half of those surveyed want to use a computer/modem network for communicating between LSC's and CPS's Board and staff. A computer network would also give them and the LSCs access to CPS's databases and computerized reference information.

About two-fifths of the community group respondents want to use broadcast TV and radio to communicate with parents and other constituencies in the community. The broadcast messages would include information about the school system activities. Broadcasts would also be used to build awareness and involvement in the school reform movement.

Implications for Telecommunications

Most schools have enough hardware to operate one or more telecommunication systems in the schools. In many schools cable television could be combined with telephones to provide distributed conferences or instruction. A computer network already exists and is accessible to all schools. Videotape players are available in most schools and production facilities are available in CPS. Many teachers are able and willing to view good professional educational programs at home.

Access. What seems to be lacking in the schools is access to the existing facilities. There is limited access to the building after school hours or on weekends. Teachers and administrators have heavy time demands during the school day. Many LSC members cannot leave work to come to the schools during the day. Existing systems are difficult for many educators and LSC members to access.

Training. From the interviews it appears that many educators have not been adequately trained to use the computer and telecommunication resources currently available. LSC members are often unaware of the CPS telecommunication resources. Furthermore, most LSC members are unaware of how telecommunication resources might be used to help them.

Maintenance. Inoperable intercoms and cable television hookups point out the need for increased maintenance of electronic hardware. No doubt similar problems exist with computer and television systems.

Material and services. Given the diverse needs of schools, it is clear that obtaining and creating appropriate materials for the system will be a much larger task than just installing hardware in the schools. With school reform, there is a need to examine how programming will be selected for future availability on telecommunication systems. There is also a need to create materials to support the reform initiative.

Telecommunications Recommendations

Establish a commission. This commission's role would be to evaluate how well alternative applications of existing and proposed telecommunication systems support school reform goals. The five criteria identified earlier in this report may serve as dimensions on which to examine alternative systems and their

uses. This committee would represent the interests of local schools, community groups, outside supporters of reform, and the CPS board.

Strengthen and support existing telecommunication networks.

Substantial resources are in place now that can be used to greatly aid reform. The EIES computer network, cable television, video tape production and distribution capabilities, and personal computers are all available now to carry services and training that can serve reform.

These systems are in need of maintenance to bring them to reliable working order. The users of these systems also need to be trained in how to effectively use these resources and provided adequate access to them.

Enhance existing telecommunication systems. Existing telecommunication systems can be enhanced in their effectiveness by a number of additions. CPS should finish connecting all schools to the cable television network. The CPS video production studio should be connected to the cable provider so that programs can be fed directly into the cable system. CPS could be allocated dedicated channels on the cable network so that programming could be under direct control of the schools.

A telephone bank could be established to answer questions about programs and resources provided by video or computer. This bank would allow for more interaction in the telecommunication network. It would also provide support about system use. For many LSC users, the telephone bank may be the only accessible interactive telecommunication resource.

Additional programming should be created to meet the specific needs of reform. Local educators and LSC members need additional training in how to implement reform policy and programs. Educators will need help with improving student accomplishment. LSC members and local administrators will need information about what resources they can use to improve local education.

VII

RECOMMENDATIONS

This study explored the feasibility of using telecommunications to support school reform in Chicago as outlined in PA 45-1418. Results from the study strongly suggest that telecommunications can and should be used to enhance and extend the quality and quantity of information and training available to parents and community residents serving on Local School Councils and to teachers and administrators working for the Chicago Public Schools.

In formulating a set of recommendations from this study it is critical to articulate a vision that is sensitive to Chicago public schools realities. On the one hand is the possibility that proposed recommendations may be so general or so tied to routine, everyday problems that they lack imagination or fervor. On the other hand, however, is the possibility that proposed ideas may not mesh with practical realities faced by a large and financially strapped system. Chicago schools are in a state of transition now. This situation demands that any and all proposals walk a fine line between the visionary and the practical. Each of the following recommendations, therefore, tries to outline innovative and yet realistic possibilities for using telecommunication systems to support school reform.

In formulating a plan, it seems clear that the Chicago Public Schools should not operate in a communications vacuum. While it is crucial that individual schools have access to the information and training that allows them to address unique local needs and concerns, there is much to be gained by establishing a telecommunications infrastructure that puts CPS in touch with the rest of the city, the state, and the region. In fact, isolating the Chicago schools from the resources of other school and government units would be contrary to the basic notion of telecommunications.

WHAT CAN AND SHOULD BE DONE IMMEDIATELY?

- Recommendation 1 Create a telecommunications-based policy initiative for the Chicago Public Schools, recommending that individual schools utilize telecommunications as the avenue of greatest economy and efficiency to support the tenets of the reform legislation in Chicago.
- Recommendation 2 Begin a public information campaign about how telecommunications can support and enhance Chicago's school reform efforts, beginning with a Telecommunications Fair at which major technology suppliers demonstrate how existing and enhanced technology systems can be configured to offer information and training to LSCs and to sustain local school staff development activities. This Fair would furnish displays and examples of what others are doing and provide workshops with hands-on instruction in the use of telecommunications.
- Recommendation 3 Establish a Telecommunications Council of local leaders who are knowledgeable about telecommunications and can influence policy and policymakers at both the city and state level; who can develop strategies for acquiring funding and other necessary systemwide support; and who can build and nurture connections between Chicago's telecommunications activities and similar activities in other cities.
- Recommendation 4 Work with the Office of Cable Communications to secure the dedication of one or more cable channels to the Chicago Public Schools. These channels could offer: 1) LSC training; 2) professional development; 3) community outreach; 3) student instruction; and 4) broadcasts of selected national educational programming from services such as PBS, TI-IN, and NETT (National Educational Technology Trust).

- Recommendation 5 Develop a plan for sustained training on the role of and strategic use of telecommunication technologies for the rethinking and restructuring of Chicago's schools. Administrators, LSC members, and teachers will learn how these resources can be used to accomplish changing goals in every aspect of schooling.
- Recommendation 6 Seek corporate support to actually create "schools of tomorrow today," schools that demonstrate and model what technology can do to help network and support educational settings. The funding would establish pilot sites across the city to participate in designing, implementing, and evaluating telecommunications systems.
- Recommendation 7 Work with local educational agencies to develop corporate and federal funding proposals that would begin to optimize these pilot systems.
- Recommendation 8 Extend the two-way use of the Chicago Public Schools' EIES system so that it is interactive, providing for meaningful central office-to-school and school-to-school communication via electronic mail and computer bulletin board. The tremendous potential of EIES should be used so that schools can make requests for specific information from central office staff as well as "talk" to other schools across the city.
- Recommendation 9 Create and operate a computer database, from which users can access items, such as, 1) information about state and federal guidelines, 2) catalogues of national and local staff development resources, and 3) authorized lists of LSC trainers. A database gives users a measure of control over information and resources that they may not have or cannot acquire with present, non-telecommunications strategies.
- Recommendation 10 Procure a Ku-C band satellite dish that would feed directly into the city's cable system and onto channels dedicated to the Chicago Public Schools. This dish would allow the schools to receive national, regional, and local educational programs for student instruction and staff development.

WHAT CAN AND SHOULD BE DONE OVER THE LONG TERM?

- Recommendation 11 Develop full studio production capabilities at the Chicago Public Schools so that teachers can begin to use this technology to produce videotapes for use in local staff development activities, so that LSCs can begin to have access to tapes that are geared to the tasks they must accomplish, and so that the system might begin to develop informational programs highlighting important Board of Education news and announcements.
- Recommendation 12 Begin strategic planning for the use of telecommunications across the state of Illinois. This strategy would connect Chicago with smaller urban centers such as Rockford, Joliet, and Peoria. For every dollar spent on telecommunications in Chicago, smaller urban districts with limited resources would save money and gain access to information and services. Conversely, any efforts made in Peoria or East St. Louis would enhance Chicago's knowledge base and access to resources. Pooling local, regional, and national resources would extend the feasibility of building and maintaining a statewide telecommunications infrastructure that had numerous applications across all areas of schooling.

Recommendation 13 Develop the capacity to offer enhanced student instruction via telecommunications to Chicago's schoolchildren. This capacity should build on the strengths of present teaching staff as well as tap the instructional resources of outside telecommunications-based systems. The "best" teachers and the most effective programs could be offered to students all across the city. This system would represent one of the most equitable "choice" programs in the country.

Recommendation 14 Establish a library of resources and materials for all categories of telecommunications programming--i.e., support of LSCs; staff development; student instruction. This library would provide a hub within each school where students can receive video instruction, teachers and administrators can receive professional development, citizens and educators can receive standardized information updates.